



**LinearDimensions**  
SEMICONDUCTOR

## The LND-2141-PKG

UP TO 48 CHANNEL VOLTAGE MULTIPLEXER

### The LND-2141-PKG Up to 48 Channel Voltage Multiplexer

#### What is the LND-2141-PKG?

The LND-2141-PKG is an analog voltage multiplexer with up to 48 input channels. Digital logic inputs control selection of the desired mux register. The device can pass either AC or DC signals through the selected line while simultaneously clamping all unused inputs to USEL. The LND-2141 is particularly useful for using a single analysis channel to selectively examine multiple analog sensor inputs using microcontroller control. Applications include embedded systems, position controllers, and multi-channel filters. For customers with high volumes requiring less than 48 input channels, Linear Dimensions can package the LND-2141 in packages with fewer pins.

#### How does it work?

##### Reset

To reset the device, set all data pins to zero, hold pin M and pin D low for at least 64 clock cycles, then return M and D to their quiescent (high) states. This clears the digital state information on all internal registers.

##### Load Internal Registers

To select a mux channel, put the channel number onto the 6 bit wide data register and pull M low and then high while D remains high. To select new channels simply repeat the process with the appropriate mux channel number on the data inputs.

#### How Do I get samples?

The LND-2141 is available in 84 pin PGA sample packages. Depending upon the number of channels required, the device is available in most standard surface mount and dip packages including 68-pin PLCC.

#### Features

- Digitally select up to 48 input channels
- Clamps all unused channels to external pin
- Select AC or DC voltages
- Standard logic voltage operation

#### Applications

- Sensor Arrays
- Security Monitors
- Input Devices
- Embedded Controllers