## **DATEL Innovation & Excellence**

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## Part Number ADS-1011LE, Sampling A/D Converters

The ADS-1011 is a serial output, low power, 10-bit A/D converter that is rated to withstand up to 30k Rad. Operating from a supply range of 2.7 V to 5.5 V, these 2.5 µs successive approximation converters are available in commercial or extended operating temperature grades. The ADS-1011 offers a unique achitechture that includes a sample-hold, high speed microprocessor compatible serial data transfer while consuming less tah 2mW of power at 50 kHz throughput. These converters are available in a 24-pin LCC hermetically sealed ceramic package, with a -40°C to +100°C temperature range.

## **Specifications**

| Resolution                             | 10 Bit                          |
|--|---------------------------------|
| Number of Channels                     | 1                               |
| Sampling Rate                          | 0.4 MHz                         |
| Acquisition Time                       | 2.5 ns                          |
| Power Consumption                      | 20 W                            |
| Differential Non-Linearity Error/Other | 1.0 LSB                         |
| Integral Non-Linearity Error/Other     | 1 LSB                           |
| Package Type                           | LCC-24pins                      |
| Input Range 1st (min)                  | 0 V                             |
| Input Range 1st (max)                  | 5 V                             |
| Required Supply Voltage 1st            | 5 V                             |
| Required Supply Voltage 3rd            | 2.7 V                           |
| Total Harmonic Distortion              | 65 dB                           |
| Signal to Noise Ratio                  | 60 dB                           |
| Analog Bandwidth                       | 25 MHz                          |
| Operating Temp. Range (min)            | -40 °C                          |
| Operating Temp. Range (max)            | +100 °C                         |
| RoHS                                   | No                              |
| Status                                 | Preliminary Product Information |

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