

EVALUATION KIT PART LIST

FEATURES

- 10-Bit 6MSPS ADC
- Programmable 6-Bit Gain Amplifier
- Programmable 8-Bit Offset Adjustment
- 4-1 Analog Multiplexer
- CIS/CCD Compatibility
- Internal Clamp for CIS/CCD AC Coupled Modes
- 3.3V/5V System Compatibility
- Parallel Load Control Registers
- Low Power CMOS (130mW-typ)
- 18-Lead SOIC Package

APPLICATIONS

- Color and Grayscale Flatbed Scanners
- Color and Grayscale Sheetfed Scanners
- Multifunction Peripherals
- Digital Color Copiers
- General Purpose CIS/CCD Imaging
- General Purpose Data Acquisition

GENERAL DESCRIPTION

The XRD9828 is a complete linear CIS/CCD sensor signal processor on a single monolithic chip. The XRD9828 includes a high speed, 6MSPS, 10-Bit ADC, a 6-Bit Programmable Gain Amplifier with gain adjustment of 1 to 10, and 8-Bit programmable input referred offset calibration of 800mV.

In the CCD mode the input signal is AC coupled with an external capacitor by using the internal clamp switch directly from the CCD sensor outputs. In the CIS mode, the clamp switch can be disabled and the CIS output

signal is DC coupled from the CIS sensor to the XRD9828.

The CIS signal is level shifted at the input in order to accommodate levels around ground. In the CIS mode the input can also be AC coupled similar to the CCD mode. This enables CIS signals with large black levels to be internally clamped to near ground level for maximum dynamic range.

The CIS mode can also be used in other applications that do not require CDS function such as general purpose data acquisition.

ORDERING INFORMATION

| Package Type | Operating Temperature Range | Part Number |
|--------------|-----------------------------|-------------|
| 18 Lead SOIC | 0°C to +70°C | XRD9828ACD |

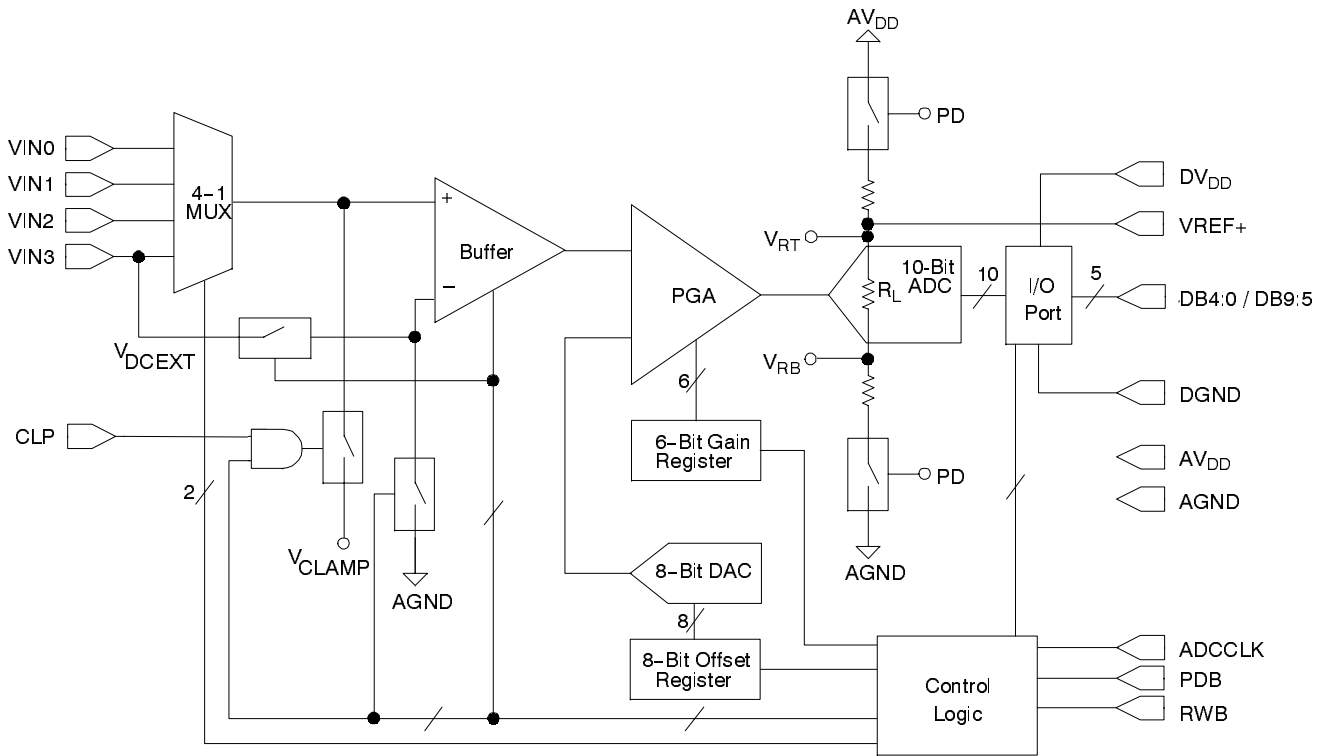


Figure1. Functional Block Diagram