



Dual-Channel, 14-Bit, CCD Signal Processor with *Precision Timing*™ Core

AD9974

FEATURES

- 1.8 V analog and digital core supply voltage
- Correlated double sampler (CDS) with
 - −3 dB, 0 dB, +3 dB, and +6 dB gain
- 6 dB to 42 dB, 10-bit variable gain amplifier (VGA)
- 14-bit, 65 MHz analog-to-digital converter (ADC)
- Black level clamp with variable level control
- Complete on-chip timing generator
- Precision Timing* core with 240 ps resolution @ 65 MHz
- On-chip 3 V horizontal and RG drivers
- 100-lead, 9 mm × 9 mm, 0.8 mm pitch, CSP_BGA package
- Internal LDO regulator circuitry

APPLICATIONS

- Professional HDTV camcorders
- Professional/high end digital cameras
- Broadcast cameras
- Industrial high speed cameras

GENERAL DESCRIPTION

The AD9974 is a highly integrated, dual-channel CCD signal processor for high speed digital video camera applications. Each channel is specified at pixel rates of up to 65 MHz. The AD9974 consists of a complete analog front end with analog-to-digital conversion combined with a programmable timing driver. The *Precision Timing* core allows adjustment of high speed clocks with approximately 240 ps resolution at 65 MHz operation.

Each analog front end includes black level clamping, CDS, VGA, and a 65 MSPS, 14-bit ADC. The timing driver provides the high speed CCD clock drivers for the RG_A, RG_B, H1_A to H4_A, and H1_B to H4_B outputs. A 3-wire serial interface is used to program each channel of the AD9974.

Available in a space-saving, 9 mm × 9 mm, CSP_BGA package, the AD9974 is specified over an operating temperature range of −25°C to +85°C.

For more information on the AD9974, email Analog Devices, Inc. at afe.ccd@analog.com.

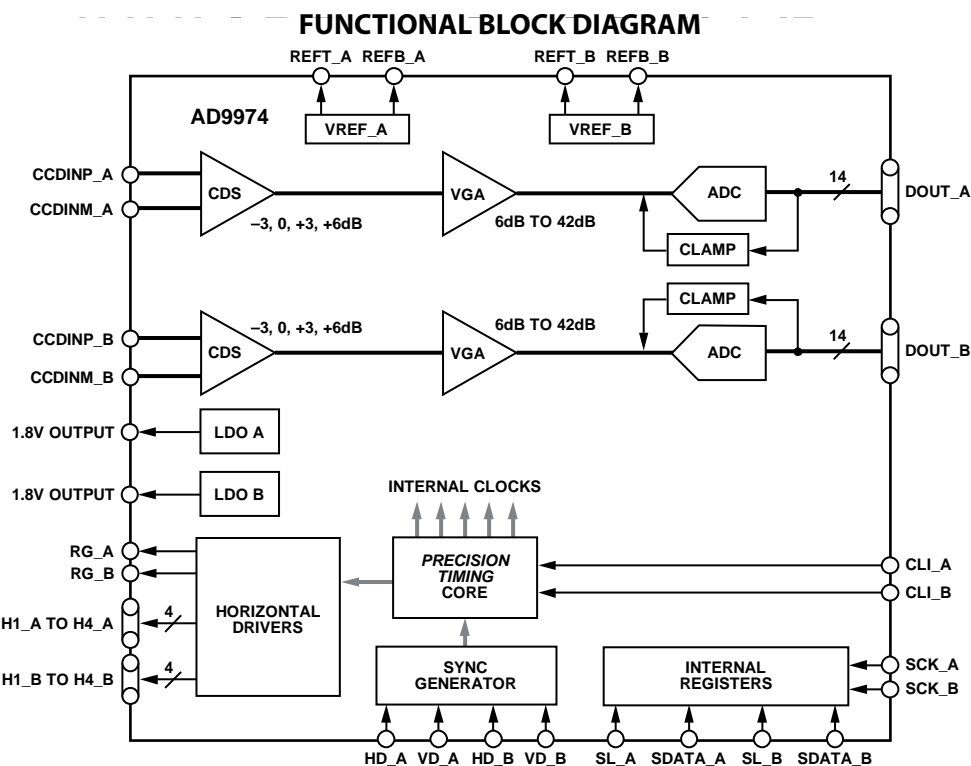


Figure 1.

Rev. Sp0

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