



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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FEATURES

- 1.8 V AFETG core
- Internal LDO regulators
- 24 programmable vertical clock signals
- 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, 32 MHz analog-to-digital converter (ADC)
- Black level clamp with variable level control
- Complete on-chip timing generator
- Precision Timing core with ~488 ps resolution
- On-chip 3 V horizontal and RG drivers
- General-purpose outputs (GPOs) for shutter and system support
- On-chip driver for external crystal
- On-chip sync generator with external sync input
- 112-ball CSP_BGA package, 8 mm x 8 mm, 0.65 mm pitch

APPLICATIONS

Digital still cameras

GENERAL DESCRIPTION

The AD9990 is a highly integrated CCD signal processor for digital still camera applications. It includes a complete analog front end with analog-to-digital conversion and a full-function, programmable timing generator for a 2-channel output CCD. Each channel is specified up to 32 MHz. The timing generator is capable of supporting up to 24 vertical clock signals to control advanced CCDs. A Precision Timing® core allows adjustment of high speed clocks with ~488 ps resolution at 32 MHz operation. The AD9990 also contains eight general-purpose outputs that can be used for shutter and system functions.

Each analog front end includes black level clamping, a CDS, a VGA, and a 14-bit ADC. The timing generator provides all the necessary CCD clocks: RG, H-clocks, V-clocks, sensor gate pulses, substrate clock, and substrate bias control.

The AD9990 is specified over an operating temperature range of -25°C to +85°C.

For more information about the AD9990, contact Analog Devices via email at afe.ccd@analog.com.

FUNCTIONAL BLOCK DIAGRAM

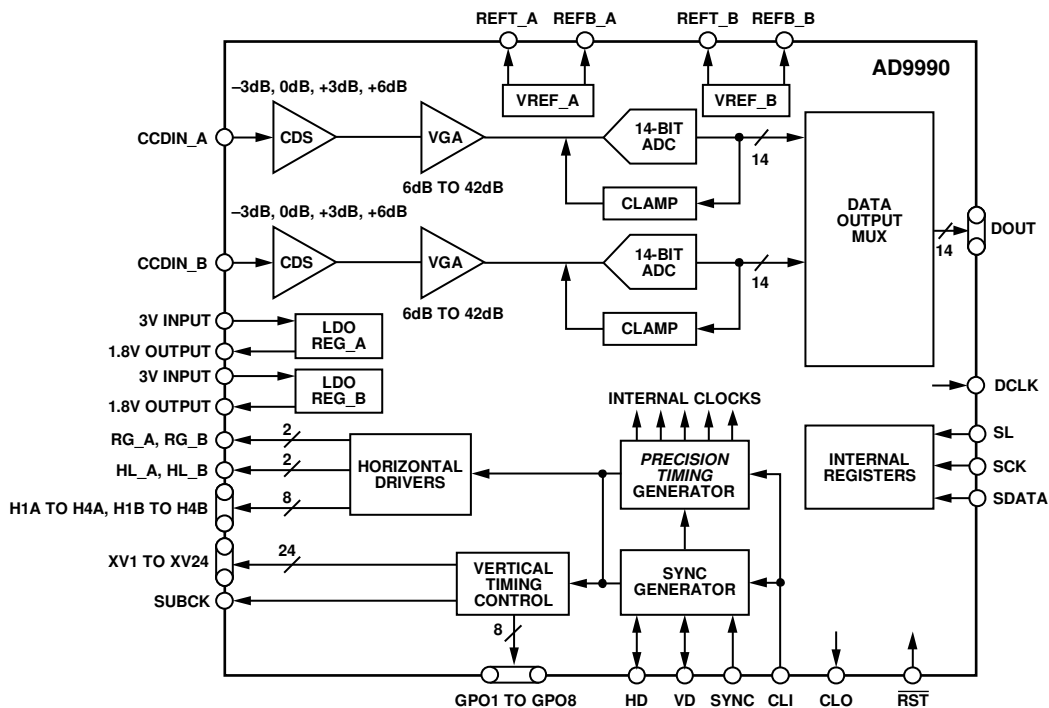


Figure 1.

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Rev. SpB

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AD9990* PRODUCT PAGE QUICK LINKS

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COMPARABLE PARTS

View a parametric search of comparable parts.

DOCUMENTATION

Data Sheet

- AD9990: Dual Channel, 14-Bit CCD Signal Processor with V-Driver and Precision Timing Core Data Sheet

DESIGN RESOURCES

- AD9990 Material Declaration
- PCN-PDN Information
- Quality And Reliability
- Symbols and Footprints

DISCUSSIONS

View all AD9990 EngineerZone Discussions.

SAMPLE AND BUY

Visit the product page to see pricing options.

TECHNICAL SUPPORT

Submit a technical question or find your regional support number.

DOCUMENT FEEDBACK

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AD9990

NOTES