

AD9977

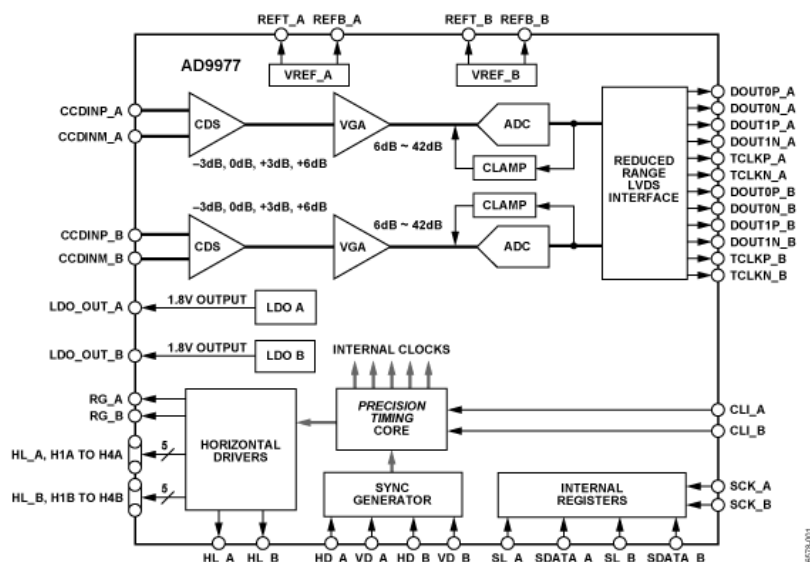
FEATURES AND BENEFITS

- 1.8 V analog and digital core supply voltage
- Serial data link with reduced range LVDS outputs
- Correlated double sampler (CDS) with -3, 0, +3, +6 dB gain
- 6 dB to 42 dB, 10-bit variable gain amplifier (VGA)
- 14-bit, 65 MHz A/D converter
- 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
- 6 mm × 6 mm, 84-ball CSP_BGA package

APPLICATIONS

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

FUNCTIONAL BLOCK DIAGRAM FOR AD9977



PRODUCT DETAILS

The AD9977 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, and consists of a complete analog front end with A/D conversion combined with a programmable timing driver. The *Precision Timing* core allows adjustment of high speed clocks with 240 ps resolution at 65 MHz operation. The AD9977 also contains a reduced range LVDS interface for the dual-channel data outputs.

Each analog front end includes black level clamping, CDS, VGA, and a 65 MSPS, 14-bit A/D converter. The timing driver provides the high speed CCD clock drivers for RG, HL, and H1 to H4. Operation is programmed using a 3-wire serial interface.

Packaged in a space-saving 6 mm × 6 mm, 84-ball CSP_BGA package, the AD9977 is specified over an operating temperature range of -25°C to +85°C.

Model	Package	Pins	Temp. Range
AD9977BBCZ	84 Ball CSPBGA (6x6x1.26mm) Stacked Die	84	Comm.
AD9977BBCZRL	84 Ball CSPBGA (6x6x1.26mm) Stacked Die	84	Comm.