Audio/Video Products
- Analog/HDMI/DVI Interfaces
- Audio A/D Converters
- Audio Amplifiers
- Audio CODECs
- Audio D/A Converters
- Audio Signal Processors
- Camera/Camcorder Analog Front Ends
- Display Driver Electronics
- Lens Driver Components
- Mobile TV Tuners
- Sample Rate Converters
- Video Amps/Buffers/Filters
- Video CODECs
- Video Compression
- Video Decoders
- Video Encoders

All Product Categories
Design Center
All Solutions/ Applications
Buy Online

AD9977 Dual-Channel, 14-Bit CCD Signal Processor with *Precision Timing*™ Core

Data Sheets | Application Notes | Evaluation Boards | Price, Packaging, and Availability

Product Description

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...More

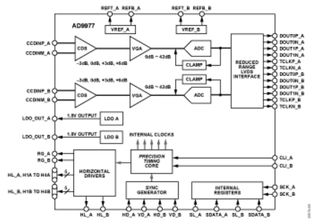
Specifications

Resolution (Bits)	14bit
Input Range (V p-p)	1V p-p
Sample Rate (MSPS)	65MSPS
Power Dissipation (mW)	300mW

Find Similar Products

Functional Block Diagram

Enlarge



Symbols and Footprints | Other Diagrams: Pin Out Diagram

Features

- 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

Price, Packaging, and Availability

Print Table

AD9977 Model Options

Model	Status	Package	Pins	Temp Range	Price* (1000 pcs.)	Available	RoHS Compliant	Samples Cart	Purchase Cart
AD9977BBCZ	Prodn	84 Ball CSPBGA (6x6x1.26mm)Stacked Die	84	Comm	$41.87	3/7/2008	Y Material Declaration	Contact ADI	Contact ADI
AD9977BBCZRL	Prodn	84 Ball CSPBGA (6x6x1.26mm)Stacked Die	84	Comm	$41.87	3/7/2008	Y Material Declaration	Contact ADI	Contact ADI

The USA list pricing shown is for BUDGETARY USE ONLY, shown in United States dollars (FOB USA per unit for the stated volume), and is subject to change. International prices may differ due to local duties, taxes, fees and exchange rates. For volume-specific price or delivery quotes, please contact your local Analog Devices, Inc. sales office or authorized distributor. Pricing displayed for Evaluation Boards and Kits is based on 1-piece pricing.

View Samples Cart | View Purchase Cart

View Sales and Distribution Offices

Find Similar Products

Download this Selection Table
(pdf, 31,079 bytes)

Select a Product Category

Last Updated: 8/2007

AFE + Integrated Timing Generator Products - Recommended for Camcorders, Digital Still Cameras, PC Cameras (Area CCD Applications)

Generic	Resolution (Bits)	Fs Max (MSPS)	DNL typ (LSB)	SNR typ (dB)[1]	Power (mW)	Input Range (Vp-p)	PGA Gain Range (dB)[3]	PxGA™	Black Level Adj. (LSB)	Program-mable V-clock	Program-mable H-clock/ H-drivers	H-Driver Voltage (V)	Integrated V-Driver Channels
AD9847*	10	40	±0.5	72	695	1	0 – 34	Yes	0 – 64	No	Yes	5	0
AD9848*	10	20	±0.4	74	220	1	0 – 34	Yes	0 – 64	No	Yes	3	0
AD9898*	10	20	±0.5	71	150	1	0 – 34	No	0 – 64	Yes	Yes	3	0
AD9937	10	12	±0.4	76	100	1	0 – 34	No	0 – 255	Yes	Yes	3	0
AD9948	10	25	±0.4	74	220	1	0 – 36	Yes	0 – 64	No	Yes	3	0
AD9991*	10	27	±0.4	74	270	1	0 – 36	No	0 – 64	Yes	Yes	3	0
AD9849*	12	30	±0.4	76	450	1	0 – 34	Yes	0 – 255	No	Yes	5	0
AD9895*	12	30	±0.4	76	600	1	0 – 34	Yes	0 – 255	Yes	Yes	5	0
AD9925	12	36	±0.5	76	370	1	0 – 42	No	0 – 255	Yes	Yes	3	10
AD9929	12	36	±0.5	71	240	1	0 – 40	No	0 – 255	Yes	Yes	3	4
AD9949	12	36	±0.5	74	320	1	0 – 36	Yes	0 – 255	No	Yes	3	0
AD9992*	12	40	±0.5	78	316	1	6 – 42	No	0 – 255	Yes	Yes	3	0
AD9994*	12	36	±0.5	74	345	1	0 – 34	No	0 – 255	Yes	Yes	3	0
AD9995*	12	36	±0.5	76	360	1	0 – 36	No	0 – 255	Yes	Yes	3	0
AD9920A	12	40.5	±0.5	78	240	1	6 – 42	No	0 – 255	Yes	Yes	3	19
AD9990**	14	32	±0.5	78	320	1	6 – 42	No	0 – 255	Yes	Yes	3	0
AD9927*	14	40	±0.5	78	316	1	6 – 42	No	0 – 255	Yes	Yes	3	18
AD9942*	14	40	±0.5	74	371	1	0 – 36	No	0 – 1023	No	Yes	3	0
AD9970	14	65	±0.5	78	150	1	6 – 42	No	0 – 255	No	Yes	3	0
AD9972	14	40	±0.5	78	182	1	6 – 42	No	0 – 255	No	Yes	3	0
AD9974	14	65	±0.5	78	300	1	6 – 42	No	0 – 255	No	Yes	3	0
AD9977	14	65	±0.5	78	300	1	6 – 42	No	0 – 255	No	Yes	3	0
AD9978	14	55	±0.5	78	190	1.4	6 – 42	No	0 – 255	No	No	N/A	0
AD9979	14	65	±0.5	78	150	1	6 – 42	No	0 – 255	No	Yes	3	0

back to top

*Not recommended for new designs.
**Integrated Dual Channel AFE with TG

Recommended for Scanners, Digital Color Copiers, and Multi-Function Peripherals (Tri-Linear CCD or CIS Applications)

Generic	Resolution (Bits)	# of Channels	Fs Max (MSPS)	DNL typ (LSB)	INL typ (LSB)	Input Referred Noise (LSBrms)	Power (mW)	Input Range (Vp-p)	PGA Gain Range (V/V)	Offset Correction Range (mv)	Digital Shading and Offset Correction
AD9807	12	3	6	±0.4	±1.5	0.3	450	2/4	4	-80/+20	Yes
AD9816	12	3	6	±0.4	±1.5	0.5	420	1.5/3	6	±100	No
AD9814	14	3	10	±0.5	±4.0	0.55	350	2/4	6	±300	No
AD9822	14	3	15	±0.65	-10/+2	1.5	380	2	6	±300	No
AD9826	16	3	15	±0.5	±16	3	400	4.00	6	±300	No

back to top

Other Products for Camcorders, Digital Still Cameras, PC Cameras (Area CCD Applications)

Generic	Resolution (Bits)	Fs Max (MSPS)	DNL typ (LSB)	SNR typ (dB)[1]	Power (mW)	Input Range (Vp-p)	PGA gain Range (dB)[3]	PxGA™	PGA Control Type	Black Level Adj. (LSB)	Aux Output DACs	Aux Video Inputs
AD9840A	10	40	±0.5	74	140	1.0	0 - 34	No	Digital	0 - 64	No	2
AD9841A	10	20	±0.4	74	75	1.0	0 - 34	Yes	Digital	0 - 64	No	2
AD9843A	10	20	±0.4	74	75	1.0	0 - 34	No	Digital	0 - 64	No	2
AD9846A	10	30	±0.5	74	125	1.0	0 - 34	Yes	Digital	0 - 255	No	2
AD9842A	12	20	±0.5	77	75	1.0	0 - 34	Yes	Digital	0 - 255	No	2
AD9844A	12	20	±0.5	77	75	1.0	0 - 34	No	Digital	0 - 255	No	2
AD9845B	12	30	±0.5	77	140	1.0	0 - 34	Yes	Digital	0 - 255	No	2
AD9945	12	40	±0.5	76	140	1	0 - 34	No	Digital	0 - 255	No	No
AD9824	14	30	±0.5	78	153	1.0	0 - 34	Yes	Digital	0 - 1020	No	2

back to top

[1] SNR is calculated as $20\log_{10}$(full-scale output/rms output noise)
[2] No longer recommended for new designs
[3] Gain range referenced to 1V full scale system
PxGA is a trademark of Analog Devices, Inc.

Signal Chains
Interactive Signal Chains

© 1995- 2008 Analog Devices, Inc. All Rights Reserved.
This site is optimized for IE 6.0+, NN 7.1, and Mozilla.

Downloaded from Arrow.com.