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Analog to Digital Converters (ADCs)

1-Channel (ADCs)

6-Bit, 1-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI-5701	A/D Converter, 6-Bit, 30MSPS, Flash	30	Flash	20	4	CMOS-II	5	1.25	0.6	Ext	SOIC

8-Bit, 1-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI1175	A/D Converter, 8-Bit, 20MSPS, Flash	20	Flash	90	2.8	CMOS	5	1.3	0.5	Int/Ext	SOIC
HI1179	A/D Converter, 8-Bit, 35MSPS, Video	35	2-Step	60	2.6	CMOS	5	+1.3, -1	0.5	Int/Ext	MQFP
HI1386	A/D Converter, 8-Bit, 75MSPS, Flash	75	Flash	150	2	Bipolar	-5.2	0.5	0.5	Ext	PDIP
HI2302	A/D Converter, 8-Bit, 50MSPS, Converter with Clamp Function	50	2-Step	100	2	CMOS	+5VA, +3.3VD	0.5	0.5	Int	MQFP
HI3026	A/D Converter, 8-Bit, 120MSPS, Input Bandwidth 150MHz, Flash	120	Flash	150	2	Bipolar	+5, ±5	0.5	0.5	Ext	MQFP
HI3026A	A/D Converter, 8-Bit, 140MSPS, Input Bandwidth 150MHz, Flash	140	Flash	150	2	Bipolar	+5, ±5	0.5	0.5	Ext	MQFP
HI3246	A/D Converter, 8-Bit, 120MSPS, Input Bandwidth 250MHz, Flash	120	Flash	250	2	Bipolar	+5, ±5	0.5	0.5	Ext	MQFP
HI3256	A/D Converter, 8-Bit, 12MSPS, Input Bandwidth 250MHz, Flash, with PS Power Saving Pin	120	Flash	250	2	Bipolar	+5, ±5	0.5	0.5	Ext	LQFP
HI3276	A/D Converter, 8-Bit, 160MSPS, Input Bandwidth 250MHz, Flash	160	Flash	250	2	Bipolar	+5, ±5	0.5	0.5	Ext	MQFP
HI3286	A/D Converter, 8-Bit, 160MSPS, Input Bandwidth 250MHz, Flash, with PS Power Saving Pin	160	Flash	250	2	Bipolar	+5, ±5	0.5	0.5	Ext	LQFP
HI5675	A/D Converter, Flash, 8-Bit, 20MSPS	20	Flash	18	5	CMOS	5	1.3	0.5	Int/Ext	SOIC
HI5714	A/D Converter, 8-Bit, 40/60/75/80MSPS	40, 75	2-Step Folding	18	2.7	BiCMOS	5	0.75	0.4	Ext	SOIC
ADC0803	A/D Converter, 8-Bit, Error ±0.5LSB V _{REF} /2 Adjusted, Microprocessor-Compatible	0.01	SAR	-	0 to 5	CMOS	5	0.5	0.5	Ext	PDIP
ADC0804	A/D Converter, 8-Bit, Error ±1LSB V _{REF} /2 Not Adjusted, Microprocessor-Compatible	0.01	SAR	-	0 to 5	CMOS	5	0.5	0.5	Ext	PDIP

10-Bit, 1-Channel ADCs

Device	Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI5746	A/D Converter, 10-Bit, 40MSPS, Internal sample and hold	40	Pipeline	250	1	CMOS	+5VA, +3VD	2	1	Ext	SOIC, SSOP
HI5766	A/D Converter, 10-Bit, 60MSPS	60	Pipeline	250	1	CMOS	+5VA, +3VD	2	1	Ext	SOIC, SSOP
HI5767	A/D Converter, 10-Bit, 20/40/60MSPS, Internal Voltage Reference	20, 40, 60	Pipeline	250	1	CMOS	+5VA, +3VD	1.75	1	Int/Ext	SOIC, SSOP

12-Bit, 1-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI-774/883	A/D Converter, 12-Bit, 100KSPS, MIL-STD	0.1	SAR	-	0 to 10 or -5 to 5	Bipolar	±15	1	1	Int/Ext	CDIP2-T28
HI5805	A/D Converter, 12-Bit, 5MSPS	5	Pipeline	100	4	BiCMOS	+5VA, +3VD	2	1	Int	SOIC
HI-574A	A/D Converter, 50KSPS, 150ns, Reference and Clock, Full 8/12/16-Bit Microprocessor Bus Interface	0.04	SAR	-	±10 or 0 to 20	Bipolar	±12 to ±15	0.5	-	Int/Ext	PDIP, SBDIP
HI-674A	A/D Converter, 83KSPS, Bus Access Time 150ns, Reference and Clock, Full 8/12/16-Bit Microprocessor Bus Interface	0.067	SAR	-	±10 or 0 to 20	Bipolar	±12 to ±15	0.5	-	Int/Ext	PDIP, SBDIP
HI5812	A/D Converter, 12-Bit, 750kHz, Internal Track and Hold, Conversion Time 20µs	0.05	SAR	1	0 to 5	CMOS	+3 to +6	1	2	Ext	SOIC, PDIP

16-Bit, 1-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI7188	A/D, Sigma Delta, 16-Bit, 8-Channel, High Precision, FCLOCK:3.6864MHz, Conversion rate:10SPS-2KSPS	0.002	4th Order Sigma Delta	-	±2.5	BiCMOS	±5	-	-	Ext	MQFP

24-Bit, 1-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V _{IN} (range) (V)	Tech.	Max Power Supply V _S (range) (V)	INL (max) (±LSB)	DNL (max) (±LSB)	V _{REF}	Pkg.
HI7190	A/D, Sigma Delta, 24-Bit, High Precision, 22-Bits Resolution No Missing Codes, FCLOCK:10MHz, Conversion Rate:10SPS-2KSPS	0.002	2nd Order Sigma Delta	-	±2.5	BiCMOS	±5	-	-	Ext	SOIC, PDIP
HI7191	A/D, Sigma Delta, 24-Bit, High Precision, 20-Bits Resolution No Missing Codes, FCLOCK:10MHz, Conversion Rate:10SPS-2KSPS	0.002	2nd Order Sigma Delta	-	±2.5	BiCMOS	±5	-	-	Ext	SOIC, PDIP

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2-Channel (ADCs)

2x8-Bit, 2-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V_{IN} (range) (V)	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5662	A/D Converter, Dual, 8-Bit, 60MSPS, Internal Voltage Reference	60	Pipeline	250	1	CMOS	+5VA, +3VD	1	0.5	Int/Ext	MQFP

2x10-Bit, 2-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V_{IN} (range) (V)	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5762	A/D Converter, Dual, 10-Bit, 60MSPS, Internal Voltage Reference	60	Pipeline	250	1	CMOS	+5VA, +3VD	2	1	Int/Ext	MQFP

3-Channel (ADCs)

3x8-Bit, 3-Channel ADCs

Device	Device Description	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V_{IN} (range) (V)	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI2303	A/D Converter, Triple, 8-Bit, 50MSPS, Converter with Clamp Function	50	2-Step	100	2	CMOS	+5VA, +3.3VD	0.7	0.3	Ext	MQFP

Integrating Display Output (A-D) Data Converters

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input V_{IN} (range) (V)	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
CA3162	A/D Converter for 3-Digit Display	3-Digits	4, 96Hz	Integrating	-	+1 to -0.1	Bipolar	5	-	-	-	PDIP
HI-7159A	A/D Converter, 5-1/2 Digit, 15 Conversions/sec in 5 1/2 Digit Mode, 60 Conversions/sec in 4 1/2 Digit Mode	5.5-Digits	0.2	2-Step	1.5	-2.5V to +2.5V	CMOS	\pm 5	0.5	0.5	Ext	PDIP, CerDIP
ICL7106	3 1/2 Digit, Liquid Crystal Display, A/D Converters	3.5-Digits	3Hz (typ)	Integrating	-	\pm 0.2	CMOS	\pm 5	-	-	Int/Ext	PDIP, MQFP
ICL7107	3 1/2 Digit, LED Display, A/D Converters	3.5-Digits	3Hz (typ)	Integrating	-	\pm 0.2	CMOS	\pm 5	-	-	Int/Ext	PDIP, MQFP
ICL7126	3 1/2 Digit, Low Power, Single-Chip A/D Converter	3.5-Digits	3Hz (typ)	Integrating	-	\pm 0.2	CMOS	\pm 5	-	-	Int/Ext	PDIP
ICL7135	4 1/2 Digit, BCD Output, A/D Converter	4.5-Digits	2Hz (typ)	Integrating	-	\pm 0.2	CMOS	5	-	-	Int/Ext	PDIP
ICL7136	3 1/2 Digit LCD/LED, Low Power Display, A/D Converters with Overrange Recovery	3.5-Digits	3Hz (typ)	Integrating	-	\pm 0.2	CMOS	\pm 5	-	-	Int/Ext	PDIP, MQFP

Digital to Analog Converters (DACs)

1-Channel (DACs)

8-Bit, 1-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
AD7523	D/A Converter, 8-Bit, Multiplying, 6.7MHz	8	6.7	I	CMOS	15	1.95	1.95	Ext	PDIP
CA3338	D/A Converter, Video, CMOS, 8-Bit, R2R Method, 50MSPS, 1LSB	8	50	V	CMOS	5	1	1	Ext	PDIP, SOIC
CA3338A	D/A Converter, Video, CMOS, 8-Bit, R2R Method, 50MSPS, 0.75LSB	8	50	V	CMOS	5	0.75	0.75	Ext	PDIP, SOIC
HI1171	D/A Converter, 8-Bit, 40 MSPS, High Speed	8	40	I	CMOS	5	1.3	0.25	Ext	SOIC
HI3338	D/A Converter, 8-Bit, CMOS, 50MHz, R2R	8	50	V	CMOS	5	1	1	Ext	SOIC
HI5660	D/A Converter, 8-Bit, 125/60MSPS, High Speed	8	60, 125	I	CMOS	+3 to +5	0.5	0.5	Int	TSSOP, SOIC

10-Bit, 1-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI20201	D/A Converter, 10-Bit, 160MSPS, Ultra High Speed	10	160	I	Bipolar	-5.2	1	0.5	Ext	SOIC, PDIP
HI2315	D/A Converter, 10-Bit, 80MSPS, Ultra-Low Glitch Version	10	80	I	CMOS	5	1.5	0.5	Ext	MQFP
HI5760	A/D Converter, 10-Bit, 60/125MSPS, Internal Voltage Reference	10	60, 125	I	CMOS	+3 to +5	1	0.5	Int/Ext	TSSOP, SOIC
ISL5761	D/A Converter, 10 Bit, 130/210MSPS, High Speed, +3.3V	10	130, 210	I	CMOS	3.3	0.5	0.5	Int/Ext	TSSOP, SOIC
AD7520	D/A Converter, 10-Bit, Multiplying, 1MHz	10	1	I	CMOS	+5 to +15	0.5	Monotonic	Ext	PDIP
AD7533	D/A Converter, 10-Bit, Multiplying, 1.7MHz	10	1.7	I	CMOS	+5 to +15	2	Monotonic	Ext	PDIP

12-Bit, 1-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5731	D/A Converter, 12-Bit, 100MSPS, High Speed	12	100	I	BiCMOS	5, -5.2	1.5	1	Int/Ext	SOIC, PDIP
HI5735	D/A Converter, 12-Bit, 80MSPS, 650mW, +5V and -5.2V, High Speed Video, TTL Input	12	80	I	BiCMOS	5, -5.2	1.5	1	Int/Ext	SOIC
HI5860	D/A Converter, 12-Bit, 130MSPS, High Speed	12	130	I	CMOS	+3 to +5	2	1	Int/Ext	SOIC
ISL5861	D/A Converter, 12-Bit, 130/210MSPS, High Speed, +3.3V	12	130, 210	I	CMOS	3.3	1.25	1	Int/Ext	TSSOP, SOIC

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12-Bit, 1-Channel DACs (Continued)

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
AD7521	D/A Converter, 12-Bit, Multiplying, 10-Bit Linearity, 1MHz	12	1	I	CMOS	± 5 to ± 15	2	Monotonic	Ext	PDIP
HI-565A	D/A Converter, 12-Bit, 6.7MHz, Settles to ± 0.5 LSB in 250ns (Max), with Reference	12	6.7	I	Bipolar	± 12 to ± 15	0.25	0.5	Int/Ext	SBDIP
HI-DAC80V	D/A Converter, 12-Bit, Settling Time 1.5-3 μ s, R2R, Low Cost	12	0.667	V	Bipolar	± 12 to ± 15	0.5	0.75	Int/Ext	PDIP

14-Bit, 1-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5741	D/A Converter, 14-Bit, 100MSPS, High Speed	14	100	I	BiCMOS	5, -5.2	1.5	1	Int	SOIC
HI5960	D/A Converter, 130MSPS, 14-Bit, High Speed	14	125	I	CMOS	+3 to +5	5	3	Int/Ext	SOIC
ISL5961	D/A Converter, 14 Bit, 130/210/250MSPS, High Speed, +3.3V	14	130, 210	I	CMOS	3.3	5	3	Int/Ext	TSSOP, SOIC

2-Channel (DACs)

2x8-Bit, 2-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5628	D/A Converter, Dual CMOS, 8-Bit, 125/60MSPS	2x8	60, 125	I	CMOS	+3 to +5	0.5	0.5	Int/Ext	LQFP
ISL5629	D/A Converter, Dual, 8 Bit, 130/210MSPS, High Speed, +3.3V	2x8	130, 210	I	CMOS	3.3	0.5	0.5	Int/Ext	LQFP

2x10-Bit, 2-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5728	D/A Converter, Dual, 10-Bit, 125/60MSPS, High Speed	2x10	60, 125	I	CMOS	+3 to +5	1	0.5	Int/Ext	LQFP
ISL5729	D/A Converter, Dual, 10 Bit, 130/210MSPS, High Speed, +3.3V	2x10	130, 210	I	CMOS	3.3	0.5	0.5	Int/Ext	LQFP

2x12-Bit, 2-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI5828	D/A Converter, Dual, 12-Bit, 130MSPS, High Speed	2x12	125	I	CMOS	+3 to +5	0.75	0.5	Int	LQFP
ISL5829	D/A Converter, Dual, 12 Bit, 130/210MSPS, High Speed, +3.3V	2x12	130, 210	I	CMOS	3.3	1.25	1	Int/Ext	LQFP

2x14-Bit, 2-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
ISL5929	D/A Converter, Dual, 14 Bit, 130/210MSPS, High Speed, +3.3V	2x14	130, 210	I	CMOS	3.3	5	3	Int/Ext	LQFP

3-Channel, (DACs)

3x8-Bit, 2-Channel DACs

Device	Device Description	Res. (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply V_S (range) (V)	INL (max) (\pm LSB)	DNL (max) (\pm LSB)	V_{REF}	Pkg.
HI1178	D/A Converter, Triple, 8-Bit, 40MSPS, RGB	3x8	40	I	CMOS	5	2.5	0.3	Ext	MQFP

Sample and Hold Data Converters

Sample and Hold Data Converters

Device	Device Description	BW @-3dB (MHz)	Slew Rate (V/ μ s)	I_{BIAS} (nA)	$I_{CC}/$ Amp (mA)	A_{OL} (dB)	V_{IO} (V/ μ s) (mV)	EXT# Hold Cap#	t_{ACQ} (ns)	Droop Rate (μ V/ μ s)	Hold Step Error (mV)	Pkg.
HA-2420	Sample and Hold Amplifiers, 3.2 μ s Acquisition Time, JFET input	2.5	5	40	3.5	94	2	Y	3200	0.005	10	CerDIP, PDIP
HA-2425	Sample and Hold Amplifiers, 3.2 μ s Acquisition Time, JFET input, Relaxed Spec	2.5	5	40	3.5	94	3	Y	3200	0.005	10	CerDIP, PDIP
HA-5320	Sample and Hold, 1 μ s Acquisition Time, Precision	2	45	70	11	126	0.2	Y	1000	0.08	5	CerDIP, PDIP, SOIC
HA-5330	Sample and Hold, 650ns Acquisition Time, Precision	4.5	90	20	19	146	0.2	N	650	0.01	0.5	CerDIP
HA-5340	Sample and Hold, 700ns Acquisition Time, Precision, Low Distortion	10	60	70	19	140	1	N	700	0.1	15	SOIC
HA5351	Sample and Hold, Low Supply Voltage, 64ns Acquisition Time	40	105	2500	20	108	1	N	64	0.3	1	SOIC

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