



## Analog Front Ends

Device	Resolution (Bits)	Max Conversion Rate (MSPS)	Typical PLL Jitter (ps) (p-p)	Sync Measurement	Auto Phase Adjust	Typical Power Dissipation @ Max Conversion Rate (mW)	Package
ISL98001-140	8	140	250	N	N	950	128 Ld MQFP
ISL98001-170	8	170	250	N	N	1050	128 Ld MQFP
ISL98001-210	8	210	250	N	N	1100	128 Ld MQFP
ISL98001-240	8	240	250	N	N	1150	128 Ld MQFP
ISL98001-275	8	275	250	N	N	1200	128 Ld MQFP
<b>ISL98003-110</b>	8	110	250	Y	Y	940	80 Ld EPTQFP
<b>ISL98003-150</b>	8	150	250	Y	Y	970	80 Ld EPTQFP
<b>ISL98003-165</b>	8	165	250	Y	Y	980	80 Ld EPTQFP
X98014	8	140	250	N	N	990	128 Ld MQFP
X98027	8	275	250	N	N	1180	128 Ld MQFP
X98017	8	170	250	N	N	1030	128 Ld MQFP
X98021	8	210	250	N	N	1090	128 Ld MQFP
X98024	8	240	250	N	N	1150	128 Ld MQFP
ISL51002-110	10	110	250	Y	Y	940	128 Ld MQFP
ISL51002-150	10	150	250	Y	Y	970	128 Ld MQFP
ISL51002-165	10	165	250	Y	Y	980	128 Ld MQFP

## Analog to Digital Converters (ADCs)

### 1-Channel (ADCs)

#### 6-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI-5701	6	30	Flash	20	4	5	1.25	0.6	Ext	18 Ld SOIC

#### 8-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI3276	8	160	Flash	250	2	+5, $\pm$ 5	0.5	0.5	Ext	48 Ld MQFP
HI5714	8	40, 75	2-Step Folding	18	2.7	5	0.75	0.4	Ext	24 Ld SOIC

#### 10-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5746	10	40	Pipeline	250	1	+5VA, +3VD	2	1	Ext	28 Ld SOIC, 28 Ld SSOP
HI5766	10	60	Pipeline	250	1	+5VA, +3VD	2	1	Ext	28 Ld SOIC, 28 Ld SSOP
HI5767	10	20, 40, 60	Pipeline	250	1	+5VA, +3VD	1.75	1	Int/Ext	28 Ld SOIC, 28 Ld SSOP

**12-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI-574A	12	0.04	SAR		$\pm 10$ or 0 to 20	$\pm 12$ to $\pm 15$	0.5		Int/Ext	28 Ld PDIP, 28 Ld SBDIP
HI-674A	12	0.067	SAR		$\pm 10$ or 0 to 20	$\pm 12$ to $\pm 15$	0.5		Int/Ext	28 Ld PDIP, 28 Ld SBDIP
HI5805	12	5	Pipeline	100	4	+5VA, +3VD	2	1	Int	28 Ld SOIC
HI5812	12	0.05	SAR	1	0 to 5	+3 to +6	1	2	Ext	24 Ld PDIP, 24 Ld SOIC

**16-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	$V_{REF}$	Package
HI7188	16	0.002	4th Order Sigma Delta		$\pm 2.5$	$\pm 5$	Ext	44 Ld MQFP

**24-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	$V_{REF}$	Package
HI7190	24	0.002	2nd Order Sigma Delta		$\pm 2.5$	$\pm 5$	Ext	20 Ld PDIP, 20 Ld SOIC
HI7191	24	0.002	2nd Order Sigma Delta		$\pm 2.5$	$\pm 5$	Ext	20 Ld PDIP, 20 Ld SOIC

**2-Channel (ADCs)**

**2x8-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5662	2x8	60	Pipeline	250	1	+5VA, +3VD	1	0.5	Int/Ext	44 Ld MQFP

**2x10-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5762	2x10	60	Pipeline	250	1	+5VA, +3VD	2	1	Int/Ext	44 Ld MQFP

**Integrating Display Output (A-D) Data Converters**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Conv. Type	Input BW (MHz)	Input $V_{IN}$ (Range) (V)	Tech.	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI-7159A	5.5-Digits	0.2	2-Step	1.5	2.5 to -2.5	CMOS	$\pm 5$	0.5	0.5	Ext	28 Ld PDIP
ICL7106	3.5-Digits	3Hz (typ)	Integrating		$\pm 0.2$	CMOS	$\pm 5$			Int/Ext	40 Ld PDIP, 44 Ld MQFP
ICL7107	3.5-Digits	3Hz (typ)	Integrating		$\pm 0.2$	CMOS	$\pm 5$			Int/Ext	40 Ld PDIP, 44 Ld MQFP
ICL7126	3.5-Digits	3Hz (typ)	Integrating		$\pm 0.2$	CMOS	$\pm 5$			Int/Ext	40 Ld PDIP
ICL7135	4.5-Digits	2Hz (typ)	Integrating		$\pm 0.2$	CMOS	5			Int/Ext	28 Ld PDIP
ICL7136	3.5-Digits	3Hz (typ)	Integrating		$\pm 0.2$	CMOS	$\pm 5$			Int/Ext	40 Ld PDIP, 44 Ld MQFP

## Digital to Analog Converters (DACs)

### 1-Channel (DACs)

#### 8-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
CA3338	8	50	V	5	1	1	Ext	16 Ld PDIP, 16 Ld SOIC
CA3338A	8	50	V	5	0.75	0.75	Ext	16 Ld PDIP, 16 Ld SOIC
HI3338	8	50	V	5	1	1	Ext	16 Ld SOIC
HI5660	8	60, 125	I	+3 to +5	0.5	0.5	Int	28 Ld SOIC, 28 Ld TSSOP

#### 10-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5760	10	60, 125	I	+3 to +5	1	0.5	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5757	10	260	I	3.3	0.5	0.5	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5761	10	130, 210	I	3.3	0.5	0.5	Int/Ext	28 Ld SOIC, 28 Ld TSSOP

#### 12-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
AD7521	12	1	I	+5 to +15	2	Monotonic	Ext	18 Ld PDIP
HI-DAC80V	12	0.667	V	+12 to +15	0.5	0.75	Int/Ext	24 Ld PDIP
HI-565A	12	6.7	I	+12 to +15	0.25	0.5	Int/Ext	24 Ld SBDIP
HI5731	12	100	I	5, -5.2	1.5	1	Int/Ext	28 Ld PDIP, 28 Ld SOIC
HI5735	12	80	I	5, -5.2	1.5	1	Int/Ext	28 Ld SOIC
HI5860	12	130	I	+3 to +5	2	1	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5857	12	360	I	3.3	1.25	1	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5861	12	130, 210	I	3.3	1.25	1	Int/Ext	28 Ld SOIC, 28 Ld TSSOP

#### 14-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5741	14	100	I	5, -5.2	1.5	1	Int	28 Ld SOIC
HI5960	14	125	I	+3 to +5	5	3	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5957	14	260	I	3.3	5	3	Int/Ext	28 Ld SOIC, 28 Ld TSSOP
ISL5961	14	130, 210	I	3.3	5	3	Int/Ext	28 Ld SOIC, 28 Ld TSSOP

## 2-Channel (DACs)

#### 2x8-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5628	2x8	60, 125	I	+3 to +5	0.5	0.5	Int/Ext	48 Ld MQFP
ISL5627	2x10	260	I	3.3	0.5	0.5	Int/Ext	48 Ld LQFP
ISL5629	2x8	130, 210	I	3.3	0.5	0.5	Int/Ext	48 Ld MQFP

**2x10-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5728	2x10	60, 125	I	+3 to +5	1	0.5	Int/Ext	48 Ld MQFP
ISL5727	2x10	260	I	3.3	0.5	0.5	Int/Ext	48 Ld LQFP
ISL5729	2x10	130, 210	I	3.3	0.5	0.5	Int/Ext	48 Ld MQFP

**2x12-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
HI5828	2x12	125	I	+3 to +5	0.75	0.5	Int	48 Ld MQFP
ISL5827	2x12	260	I	3.3	1.25	1	Int/Ext	48 Ld LQFP
ISL5829	2x12	130, 210	I	3.3	1.25	1	Int/Ext	48 Ld MQFP

**2x14-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Power Supply $V_S$ (Range) (V)	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
ISL5927	2x13	260	I	3.3	5	3	Int/Ext	48 Ld LQFP
ISL5929	2x14	130, 210	I	3.3	5	3	Int/Ext	48 Ld MQFP

**Non-Volatile DACs**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Output I/V	Tech.	Max Power Supply $V_S$	INL (max) ( $\pm$ LSB)	DNL (max) ( $\pm$ LSB)	$V_{REF}$	Package
X79000	12	0.417	V	CMOS	5.5	10	0.5	Int/Ext	20 Ld TSSOP
X79001	12	0.417	V	CMOS	5.5	10	0.5	Int/Ext	20 Ld TSSOP

**Sample and Hold Amplifiers**

Device	BW (MHz)	SR (V/ $\mu$ s)	$I_{BIAS}$ (mA)	$I_S/Amp$ (mA)	$A_{OL}$ (db)	$V_{OS}$ (V/ $\mu$ s) (mV)	EXT# Hold Cap#	$t_{ACQ}$ (ns)	Droop Rate ( $\mu$ V/ $\mu$ s)	Hold Step Error (mV)	Package
HA-2420	2.5	5	40	3.5	94	2	Y	3200	0.005	10	14 Ld CerDIP
HA-2425	2.5	5	40	3.5	94	3	Y	3200	0.005	10	14 Ld PDIP
HA-5320	2	45	70	11	126	0.2	Y	1000	0.08	5	14 Ld CerDIP, 14 Ld PDIP, 16 Ld SOIC
HA-5330	4.5	90	20	19	146	0.2	N	650	0.01	0.5	14 Ld CerDIP
HA5351	40	105	2500	20	108	1	N	64	0.3	1	8 Ld SOIC

**High Speed Analog to Digital Converters (ADCs)**

**14-Bit**

Device	Resolution (Bits)	Conv. Rate (MSPS)	Channels	SNR (dBFS)	SFDR (dBc)	Power (mW)	Supply Voltage (V)	Package
KAD5514P-25	14	250	1	69.5	89.9	390	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5514P-21	14	210	1	70.1	86.7	363	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5514P-17	14	170	1	70.6	87.2	339	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5514P-12	14	125	1	70.9	84.9	309	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN

## 12-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Channels	SNR (dBFS)	SFDR (dBc)	Power (mW)	Supply Voltage (V)	Package
KAD5512P-50	12	500	1	65.9	87.3	432	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD5512HP-25	12	250	1	68.3	86.4	390	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5512P-25	12	250	1	66.1	83	234	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5612P-25	12	250	2	66.1	81.8	429	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD5512HP-21	12	210	1	68.8	87.2	363	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5512P-21	12	210	1	66.6	81.4	219	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5612P-21	12	210	2	66.6	82.8	405	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD5512HP-17	12	170	1	69.1	87.3	339	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5512P-17	12	170	1	66.9	78.8	204	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5612P-17	12	170	2	66.9	80.1	372	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD5512HP-12	12	125	1	69.3	84.9	309	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5512P-12	12	125	1	67.1	79.6	189	Multi (1.8 Anlg, 1.8 Dig)	48 Ld QFN, 72 Ld QFN
KAD5612P-12	12	125	2	67.2	80.4	342	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
HI5805	12	5	1	68	83	300	+5VA, +3VD	28 Ld SOIC

## 10-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Channels	SNR (dBFS)	SFDR (dBc)	Power (mW)	Supply Voltage (V)	Package
KAD5510P-50	10	500	1	60.7	83.2	414	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD2710L-27	10	270	1	55.7	69	278	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD5610P-25	10	250	2	60.8	83	411	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD2710C-21	10	210	1	56.4	70	222	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2710L-21	10	210	1	56.4	70	240	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD5610P-21	10	210	2	60.8	82	387	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD2710C-17	10	170	1	56.6	71	199	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2710L-17	10	170	1	56.6	71	217	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD5610P-17	10	170	2	61	78	357	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD5610P-12	10	125	2	61	79	327	Multi (1.8 Anlg, 1.8 Dig)	72 Ld QFN
KAD2710C-10	10	105	1	56.6	71	163	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2710L-10	10	105	1	56.6	71	178	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
HI5767	10	20, 40, 60	1	55.9	76	310	+5VA, +3VD	28 Ld SOIC, 28 Ld SSOP, 28 Ld Eval Board
HI5766	10	60	1	53.7	58	260	+5VA, +3VD	28 Ld SOIC
HI5762	10	60	2	54.7	70	650	+5VA, +3VD	44 Ld MQFP, 44 Ld Eval Board
HI5746	10	40	1	55.4	68	225	+5VA, +3VD	28 Ld SOIC

### 8-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Channels	SNR (dBFS)	SFDR (dBc)	Power (mW)	Supply Voltage (V)	Package
KAD2708L-35	8	350	1	50.4	65	327	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708C-27	8	270	1	50.4	68	261	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708L-27	8	270	1	50.4	68	275	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708L-21	8	210	1	49.5	69	237	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708C-17	8	170	1	49.5	69	199	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708L-17	8	170	1	49.5	69	211	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
HI3276	8	160	1	46		550	+5, ±5	48 Ld MQFP
KAD2708C-10	8	105	1	49.5	69	163	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
KAD2708L-10	8	105	1	49.5	69	172	Multi (1.8 Anlg, 3.3 Anlg, 1.8 Dig)	68 Ld QFN
HI5714	8	40, 75	1	48	62	325	5	24 Ld SOIC, 24 Ld Eval Board
HI5662	8	60	1	48	71	650	+5VA, +3VD	44 Ld MQFP, 28 Ld Eval Board

### 6-Bit

Device	Resolution (Bits)	Conv. Rate (MSPS)	Channels	SNR (dBFS)	Power (mW)	Supply Voltage (V)	Package
HI-5701	6	30	1	36	250	5	18 Ld SOIC

