Precision ADCs

Single-Channel SAR ADCs

Part Number	Resolution (Bits)	Sample Rate (kSPS)	Input Type	Reference (V)	Data Bus Interface	Package	Description
Unipolar, Single-Channel SAR ADCs							
AD7960 ***New***	18	5000	Differential	2.048, 4.096, 5 (external)	LVDS	48-lead LQFP	18-bit, 5 MSPS PulSAR® differential ADC
AD7641	18	2000	Differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 2 MSPS SAR ADC
AD7986	18	2000	Differential	4.096	SPI	20-lead LFCSP	18-bit, 2 MSPS PulSAR 15 mW ADC
AD7984	18	1333	Differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 1.33 MSPS PulSAR 10.5 mW ADC
AD7643	18	1250	Differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 1.25 MSPS PulSAR ADC
AD7982	18	1000	Differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 1 MSPS PulSAR 7.0 mW ADC
AD7674	18	800	Differential	5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 2.5 LSB INL, 800 kSPS SAR ADC
AD7679	18	570	Differential	5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 570 kSPS PulSAR ADC
AD7989-5	18	500	Differential	2.4 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 500 kSPS PulSAR ADC
AD7690	18	400	Differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 1.5 LSB INL, 400 kSPS PulSAR differential ADC
AD7691	18	250	Differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 1.5 LSB INL, 250 kSPS PulSAR differential ADC
AD7989-1	18	100	Differential	2.4 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	18-bit, 100 kSPS PulSAR ADC
AD7678	18	100	Differential	5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 100 kSPS PulSAR ADC
AD7626	16	10,000	Differential	4.096	SPI	32-lead LFCSP	16-bit, 10 MSPS, PulSAR differential ADC
AD7625	16	6000	Differential	4.096	SPI	32-lead LFCSP	16-bit, 6 MSPS, PulSAR differential ADC
AD7961 ***New***	16	5000	Differential	2.048, 4.096, 5 (external)	LVDS	48-lead LQFP	16-bit, 5MSPS SAR ADC
AD7621	16	3000	Differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 2 LSB INL, 3 MSPS PulSAR ADC
AD7985	16	2500	Pseudo differential	4.096	SPI	20-lead LFCSP	16-bit, 2.5 MSPS, 15.5 mW PulSAR ADC
AD7622	16	2000	Differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1.5 LSB INL, 2 MSPS PulSAR ADC
AD7983	16	1333	Pseudo differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 1.33 MSPS PulSAR ADC
AD7623	16	1333	Differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1.33 MSPS PulSAR ADC
AD7915 ***New***	16	1000	Differential	2.4 to 5.1 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 1 MSPS PulSAR differential ADC
AD7980	16	1000	Pseudo differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 1 MSPS PulSAR ADC
AD7653	16	1000	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1 MSPS PulSAR unipolar ADC with reference
AD7667	16	1000	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1 MSPS PulSAR unipolar ADC with reference
AD7677	16	1000	Differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1 LSB INL, 1 MSPS differential ADC
AD7981 ***New***	16	600	Pseudo differential	2.5 to 5.5 (external)	SPI	10-lead MSOP	High temperature capability −55°C to +175°C
AD7650	16	570	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 570 kSPS, low cost CMOS ADC
AD7664	16	570	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 570 kSPS PulSAR unipolar CMOS ADC
AD7916 ***New***	16	500	Differential	2.4 to 5.1 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 500 kSPS PulSAR differential input ADC
AD7988-5 ***New***	16	500	Pseudo differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, lower power PulSAR ADC
AD7652	16	500	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 500 kSPS PulSAR unipolar ADC with reference
AD7666	16	500	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 500 kSPS PulSAR unipolar ADC with reference
AD7676	16	500	Differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, ±1 LSB INL, 500 kSPS, differential ADC
AD7686	16	500	Pseudo differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 500 kSPS PulSAR ADC
AD7688	16	500	Differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 1.5 LSB INL, 500 kSPS PulSAR differential ADC
AD7693	16	500	Differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, ±0.5 LSB, 500 kSPS PulSAR differential ADC
AD7685	16	250	Pseudo differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 250 kSPS PulSAR ADC
AD7687	16	250	Differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, 1.5 LSB INL, 250 kSPS PulSAR differential ADC
AD7694	16	250	Pseudo differential	0.5 to 5 (external)	SPI	8-lead MSOP	16-bit, 250 kSPS PulSAR ADC
AD7988-1 ***New***	16	100	Pseudo differential	2.5 to 5.5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	16-bit, lower power PulSAR ADC
AD7651	16	100	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 100 kSPS PulSAR unipolar ADC with reference
AD7660	16	100	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 100 kSPS PulSAR unipolar CMOS ADC
AD7661	16	100	Pseudo differential	2.5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 100 kSPS PulSAR unipolar ADC with reference
AD7675	16	100	Differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 100 kSPS differential ADC
AD7680	16	100	Single-ended	5 (external)	SPI	6-lead SOT-23	16-bit, 3 mW, 100 kSPS ADC

For more information on ADI precision ADCs, visit *www.analog.com/ADCs*.

ANALOG DEVICES

Single-Channel SAR ADCs *(continued)*

Part Number	Resolution (Bits)	Sample Rate (kSPS)	Input Type	Reference (V)	Data Bus Interface	Package	Description
Unipolar, Single-Channel SAR ADCs							
AD7683	16	100	Pseudo differential	0.5 to 5 (external)	SPI	8-lead MSOP	16-bit, 100 kSPS, single-ended PulSAR ADC
AD7684	16	100	Pseudo differential	0.5 to 5 (external)	SPI	8-lead MSOP	16-bit, 100 kSPS PulSAR differential ADC
AD7484	14	3000	Single-ended	2.5 (external/internal)	Parallel	48-lead LQFP	14-bit, 3 MSPS parallel ADC
AD7485	14	1000	Single-ended	2.5 (external/internal)	SPI	48-lead LQFP	12-bit, 1 MSPS serial ADC
AD7946	14	500	Differential/pseudo differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	14-bit, no missing codes, ±1 LSB INL, 85 dB SNR
AD7942	14	250	Differential/pseudo differential	0.5 to 5 (external)	SPI	10-lead MSOP, 10-lead LFCSP	14-bit, no missing codes, ±1 LSB INL, 85 dB SNR
AD7940	14	100	Single-ended	V_{DD}	SPI	6-lead SOT-23, 8-lead MSOP	14-bit, 100 kSPS serial SAR ADC
AD7274	12	3000	Single-ended	1.2 to V_{DD} (external)	SPI	8-lead TSOT, 8-lead MSOP	12-bit, 3 MSPS SAR ADC with external V_{REF}
AD7276	12	3000	Single-ended	V_{DD}	SPI	6-lead TSOT, 8-lead MSOP	12-bit, 3 MSPS SAR ADC
AD7482	12	3000	Single-ended	2.5 (external/internal)	Parallel	48-lead LQFP	12-bit, 3 MSPS parallel ADC
AD7482	12	3000	Single-ended	2.5 (external/internal)	Parallel	48-lead LQFP	12-bit, 3 MSPS parallel ADC
AD7472	12	1500	Single-ended	2.5 (external)	Parallel	24-lead SOIC, 24-lead TSSOP	12-bit, 1.5 MSPS, 4.5 mW parallel ADC
AD7492	12	1250	Single-ended	2.5 (internal)	Parallel	24-lead TSSOP, 24-lead SOIC	12-bit, 1.25 MSPS,16 mW parallel ADC with internal REF and CLK
AD7091 ***New***	12	1000	Single-ended	V_{DD}	SPI	8-lead LFCSP	12-bit, serial, ultralow power SAR
AD7091R ***New***	12	1000	Single-ended	2.5 (internal), 2.7 to V_{DD} (external)	SPI	10-lead LFCSP, 10-lead MSOP	12-bit, serial, ultralow power SAR ADC with internal V_{REF}
AD7450A	12	1000	Differential	2.5 (external)	SPI	8-lead SOT-23, 8-lead MSOP	12-bit, 1 MSPS differential input ADC
AD7451	12	1000	Pseudo differential	2.5 (external)	SPI	8-lead SOT-23, 8-lead MSOP	12-bit, 1 MSPS pseudo differential, unipolar ADC
AD7475	12	1000	Single-ended	2.5 (external)	SPI	8-lead MSOP, 8-lead SOIC	12-bit, 1 MSPS low power ADC
AD7476A	12	1000	Single-ended	V_{DD}	SPI	6-lead SC70, 8-lead MSOP	12-bit, 1 MSPS, 2.35 V to 5.25 V ADC
AD7495	12	1000	Single-ended	2.5 (internal)	SPI	8-lead MSOP, 8-lead SOIC	12-bit, 1 MSPS low power ADC with internal V_{REF}
AD7457	12	100	Pseudo differential	2.5 (external)	SPI	8-lead SOT-23	12-bit, 100 kSPS pseudo differential, unipolar ADC
AD7452	12	555	Differential	2.5 (external)	SPI	8-lead SOT-23	12-bit, 555 kSPS differential input ADC
AD7453	12	555	Pseudo differential	2.5 (external)	SPI	8-lead SOT-23	12-bit, 555 kSPS pseudo differential, unipolar input ADC
AD7920	12	250	Single-ended	V_{DD}	SPI	6-lead SC70, 8-lead MSOP	12-bit, 250 kSPS low power ADC
AD7466	12	200	Single-ended	V_{DD}	SPI	6-lead SOT-23, 8-lead MSOP	12-bit, 1.6 V micropower ADC
AD7273	10	3000	Single-ended	1.2 to V_{DD} (external)	SPI	8-lead TSOT, 8-lead MSOP	10-bit, 3 MSPS SAR ADC with external V_{REF}
AD7277	10	3000	Single-ended	V_{DD}	SPI	6-lead TSOT, 8-lead MSOP	10-bit, 3 MSPS SAR ADC
AD7470	10	1750	Single-ended	2.5 (external)	Parallel	24-lead SOIC, 24-lead TSSOP	10-bit, 1.75 MSPS, 4.5 mV parallel ADC
AD7477A	10	1000	Single-ended	V_{DD}	SPI	6-lead SC70, 8-lead MSOP	10-bit, 1 MSPS, 2.35 V to 5.25 V ADC
AD7440	10	1000	Differential	2.5 (external)	SPI	8-lead SOT-23, 8-lead MSOP	10-bit, 1 MSPS differential input ADC
AD7467	10	275	Single-ended	V_{DD}	SPI	6-lead SOT-23, 8-lead MSOP	10-bit, 1.6 V micropower ADC
AD7910	10	250	Single-ended	V_{DD}	SPI	6-lead SC70, 8-lead MSOP	Low power, 250 kSPS, 10-bit ADC
AD7278	8	3000	Single-ended	V_{DD}	SPI	6-lead TSOT, 8-lead MSOP	8-bit, 3 MSPS SAR ADC
AD7478A	8	1200	Single-ended	V_{DD}	SPI	6-lead SC70, 8-lead MSOP	8-bit,1.2 MSPS, 2.35 V to 5.25 V ADC
AD7468	8	320	Single-ended	V_{DD}	SPI	6-lead SOT-23, 8-lead MSOP	8-bit, 1.6 V micropower ADC
Bipolar, Single-Channel SAR ADCs							
AD7634	18	670	Differential	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 670 kSPS differential, programmable input PulSAR ADC
AD7631	18	250	Differential	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	18-bit, 250 kSPS differential, programmable input PulSAR ADC
AD7671	16	1000	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 1 MSPS CMOS ADC
AD7612	16	750	Pseudo differential	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 750 kSPS, unipolar, programmable input PulSAR ADC
AD7665	16	570	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 570 kSPS CMOS ADC
AD7610	16	250	Pseudo differential	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 250 kSPS unipolar, programmable input PulSAR ADC
AD7663	16	250	Pseudo differential	2.5 (external)	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	16-bit, 250 kSPS CMOS ADC
AD976A	16	200	Single-ended	2.5	Parallel	28-lead SSOP, 28-lead PDIP	16-bit, 100 kSPS/200 kSPS Bi*CMOS*® ADC
AD977A	16	200	Single-ended	2.5	SPI	28-lead SSOP	16-bit, 100 kSPS/200 kSPS Bi*CMOS* ADC
AD7951	14	1000	Pseudo differential	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	14-bit, no missing codes, ±1 LSB INL, 84.5 dB SNR
AD7952	14	1000	Differential/single-ended	5	Parallel/SPI	48-lead LQFP, 48-lead LFCSP	14-bit, no missing codes, ±1 LSB INL, 84.5 dB SNR

Multiplexed SAR ADCs

Part Number	Number of Channels	Resolution (Bits)	Sample Rate (kSPS)	Input Type	Reference (V)	Data Bus Interface	Package	Description
Unipolar, Multiplexed SAR ADCs								
AD7682	4	16	250	Single-ended/differential/pseudo differential	2.5/4.1	SPI	20-lead LFCSP	16-bit, 4-channel, 250 kSPS PulSAR ADC
AD7699	8	16	500	Single-ended/differential/pseduo differential	2.5/4.1	SPI	20-lead LFCSP	16-bit, 8-channel, 500 kSPS PulSAR ADC
AD7689	8	16	250	Single-ended/differential/pseudo differential	2.5/4.1	SPI	20-lead LFCSP	16-bit, 8-channel, 250 kSPS PulSAR ADC
AD7949	8	14	250	Single-ended	2.5/4.1	SPI	20-lead LFCSP	14-bit, no missing codes, ±1 LSB INL, 83 dB SNR
AD7091R-2 ***New***	2	12	1000	Single-ended	2.5 (internal), 2.7 to V_{DD} (external)	SPI	16-lead LFCSP, 16-lead TSSOP	12-bit SPI, ultralow power SAR ADC with internal V_{REF}
AD7922	2	12	1000	Single-ended	V_{DD}	SPI	8-lead TSOT, 8-lead MSOP	12-bit, 2-channel, 1 MSPS ADC
AD7921	2	12	250	Single-ended	V_{DD}	SPI	8-lead TSOT, 8-lead MSOP	12-bit, 2-channel, 250 kSPS ADC
AD7992	2	12	188	Single-ended	1.2 to V_{DD} (external)	I^2C	10-lead MSOP	12-bit, 2-channel ADC with I^2C-compatible interface
AD7934	4	12	1500	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	28-lead TSSOP	12-bit, 4-channel, 1.5 MSPS parallel ADC with a sequencer
AD7091R-4 ***New***	4	12	1000	Single-ended	2.5 (internal), 2.7 to V_{DD} (external)	SPI	20-lead LFCSP, 20-lead TSSOP	12-bit, SPI, ultralow power SAR ADC with internal V_{REF}
AD7924	4	12	1000	Single-ended	2.5 (external)	SPI	16-lead TSSOP	12-bit, 4-channel, 1 MSPS ADC with channel sequencer
AD7934-6	4	12	625	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	28-lead TSSOP	12-bit, 4-channel, 625 kSPS parallel ADC with a sequencer
AD7923	4	12	200	Single-ended	2.5 (external)	SPI	16-lead TSSOP	12-bit, 4-channel, 200 kSPS ADC with channel sequencer
AD7994	4	12	188	Single-ended	1.2 to V_{DD} (external)	I^2C	16-lead TSSOP	12-bit, 4-channel ADC with I^2C-compatible interface
AD7991	4	12	140	Single-ended	1.2 to V_{DD} (external)	I^2C	8-lead SOT	12-bit, 4-channel I^2C ADC
AD7938	8	12	1500	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	32-lead TQFP, 32-lead LFCSP	12-bit, 8-channel, 1.5 MSPS parallel ADC with a sequencer
AD7091R-8 ***New***	8	12	1000	Single-ended	2.5 (internal), 2.7 to V_{DD} (external)	SPI	24-lead LFCSP, 24-lead TSSOP	12-bit, SPI, ultralow power SAR ADC with internal V_{REF}
AD7298 ***New***	8	12	1000	Single-ended	2.5 (internal), 1 to 2.5 (external)	SPI	20-lead LFCSP	12-bit, 8-channel, 1 MSPS ADC with internal reference, temperature sensor
AD7928	8	12	1000	Single-ended	2.5 (external)	SPI	20-lead TSSOP	12-bit, 8-channel, 1 MSPS ADC with channel sequencer
AD7938-6	8	12	625	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	32-lead TQFP, 32-lead LFCSP	12-bit, 8-channel, 625 kSPS parallel ADC with a sequencer
AD7927	8	12	200	Single-ended	2.5 (external)	SPI	20-lead TSSOP	12-bit, 8-channel, 200 kSPS ADC with channel sequencer
AD7998	8	12	188	Single-ended	1.2 to V_{DD} (external)	I^2C	20-lead TSSOP	12-bit, 8-channel ADC with I^2C-compatible interface
AD7291 ***New***	8	12	22	Single-ended	2.5 (internal), 1 to 2.5 (external)	I^2C	20-lead LFCSP	12-bit, 8-channel ADC with internal reference, temperature sensor
AD7490	16	12	1000	Single-ended	2.5 (external)	SPI	28-lead TSSOP, 32-lead LFCSP	12-bit, 16-channel, 1 MSPS ADC with channel sequencer
AD7912	2	10	1000	Single-ended	V_{DD}	SPI	8-lead TSOT, 8-lead MSOP	10-bit, 2 channel, 1 MSPS ADC
AD7911	2	10	250	Single-ended	V_{DD}	SPI	8-lead TSOT, 8-lead MSOP	10-bit, 2 channel, 250 kSPS ADC
AD7933	4	10	1500	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	28-lead TSSOP	10-bit, 4-channel, 1.5 MSPS parallel ADC with a sequencer
AD7914	4	10	1000	Single-ended	2.5 (external)	SPI	16-lead TSSOP	10-bit, 4-channel, 1 MSPS ADC with channel sequencer
AD7993	4	10	188	Single-ended	1.2 to V_{DD} (external)	I^2C	16-lead TSSOP	10-bit, 4-channel ADC with I^2C-compatible interface
AD7995	4	10	140	Single-ended	1.2 to V_{DD} (external)	I^2C	8-lead SOT	10-bit, 4-channel I^2C ADC
AD7939	8	10	1500	Single-ended/differential/pseudo differential	2.5 (external/internal)	Parallel	32-lead TQFP, 32-lead LFCSP	10-bit, 8-channel, 1.5 MSPS parallel ADC with a sequencer
AD7918	8	10	1000	Single-ended	2.5 (external)	SPI	20-lead TSSOP	10-bit, 8-channel, 1 MSPS ADC with channel sequencer
AD7928 ***New***	8	10	1000	Single-ended	2.5 (internal, 1 to 2.5 (external)	SPI	20-lead LFCSP	10-bit, 8-channel, 1 MSPS ADC with internal reference
AD7997	8	10	188	Single-ended	1.2 to V_{DD} (external)	I^2C	20-lead TSSOP	10-bit, 8-channel ADC with I^2C-compatible interface
AD7904	4	8	1000	Single-ended	2.5 (external)	SPI	16-lead TSSOP	8-bit, 4-channel, 1 MSPS ADC with channel sequencer
AD7999	4	8	140	Single-ended	1.2 to V_{DD} (external)	I^2C	8-lead SOT	8-bit, 4-channel I^2C ADC
AD7908	8	8	1000	Single-ended	2.5 (external)	SPI	20-lead TSSOP	8-bit, 8-channel, 1 MSPS ADC with channel sequencer
Bipolar, Multiplexed SAR ADCs								
AD974	4	16	200	Single-ended	2.5	SPI	28-lead SSOP	16-bit, 4-channel, 200 kSPS data acquisition system
ADAS3022 ***New***	8	16	1000	Single-ended/differential	4.096	Serial/SPI	40-lead LFCSP	Integrated PGA, user-programmable ranges
AD7322	2	13	1000	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	14-lead TSSOP	12-bit+, 8-channel, 1 MSPS *i*CMOS® ADC
AD7321	2	13	500	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	14-lead TSSOP	12-bit+, 8-channel, 500 kSPS *i*CMOS ADC
AD7324	4	13	1000	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	16-lead TSSOP	12-bit+, 4-channel, 1 MSPS *i*CMOS ADC
AD7323	4	13	500	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	16-lead TSSOP	12-bit+, 4-channel, 500 kSPS *i*CMOS ADC
AD7328	8	13	1000	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	20-lead TSSOP	12-bit+, 2-channel, 1 MSPS *i*CMOS ADC
AD7329	8	13	1000	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	24-lead TSSOP	12-bit+, 1 MSPS *i*CMOS ADC with mux out
AD7327	8	13	500	Single-ended/differential/pseudo differential	2.5 (external/internal)	SPI	20-lead TSSOP	12-bit+, 2-channel, 500 kSPS *i*CMOS ADC

Simultaneous Sampling ADCs

Part Number	Number of Simultaneous Sampling Channels	Total Number of Channels	Resolution (Bits)	Sample Rate (kSPS)	Input Type	Reference (V)	Data Bus Interface	Package	Description
Dual Simultaneous Sampling ADCs with Multiplexed Inputs									
AD7654	2	4	16	500	Single-ended	2.5 (external)	Parallel/SPI	24-lead TSSOP	16-bit, 2-channel, 500 kSPS, dual simultaneous sampling PulSAR ADC
AD7655	2	4	16	500	Single-ended	2.5 (external)	Parallel/SPI	32-lead TQFP, 32-lead LFCSP	16-bit, 4-channel, 1 MSPS PulSAR ADC
AD7367	2	4	14	1000	Single-ended	2.5 (external/internal)	SPI	64-lead LQFP	14-bit, 2-channel, 1 MSPS, true bipolar input, dual simultaneous sampling SAR ADC
AD7367-5	2	4	14	500	Single-ended	2.5 (external/internal)	SPI	20-lead QSOP	14-bit, 2-channel, 500 kSPS, true bipolar input, dual simultaneous sampling SAR ADC
AD7366	2	4	12	1000	Single-ended	2.5 (external/internal)	SPI	64-lead LQFP	12-bit, 2-channel, 1 MSPS, true bipolar input, dual simultaneous sampling SAR ADC
AD7366-5	2	4	12	500	Single-ended	2.5 (external/internal)	SPI	64-lead LQFP	12-bit, 2-channel, 1 MSPS, true bipolar input, dual simultaneous sampling SAR ADC
AD7866	2	4	12	1000	Single-ended	2.5 (external/internal)	SPI	48-lead LQFP, 48-lead LFCSP	12-bit, 2-channel, 1 MSPS dual serial interface SAR ADC
AD7266	2	12 (single-ended), 6 (differential)	12	2000	Single-ended/differential/ pseudo differential	2.5 (external/internal)	SPI	64-lead LQFP	12-bit, 3-channel/6-channel, 2 MSPS, dual differential/single-ended input SAR ADC
AD7265	2	12 (single-ended), 6 (differential)	12	1000	Single-ended/differential/ pseudo differential	2.5 (external/internal)	SPI	64-lead LQFP	12-bit, 3-channel/6-channel, 1 MSPS, dual differential/single-ended input SAR ADC
Simultaneous Sampling ADCs, 1 Channel per ADC									
AD7608	8	8	18	200	Single-ended	2.5	Parallel/SPI	16-lead TSSOP	8-channel DAS with 18-bit bipolar, simultaneous sampling ADC
AD7609	8	8	18	200	Differential	2.5	Parallel/SPI	16-lead TSSOP	8-channel DAS with 18-bit bipolar, simultaneous sampling ADC
AD7902 ***New***	2	2	16	1000	Pseudo differential	2.4 to 5 (external)	SPI	16-lead TSSOP	Two separate interfaces per ADC, or combined interface for both
AD7903 ***New***	2	2	16	1000	Differential	2.4 to 5 (external)	SPI	24-lead TSSOP	Two separate interfaces per ADC, or combined interface for both
AD7606-4	4	4	16	200	Single-ended	2.5	Parallel/SPI	48-lead TQFP, 48-lead LFCSP	4-channel DAS with 16-bit simultaneous sampling ADC
AD7656	6	6	16	250	Single-ended	2.5	Parallel/SPI	32-lead TQFP, 32-lead LFCSP	16-bit, 6-channel, 250 kSPS simultaneous sampling ADC
AD7606-6	6	6	16	200	Single-ended	2.5	Parallel/SPI	64-lead LQFP	6-channel DAS with 16-bit simultaneous sampling ADC
ADAS3023 ***New***	8	8	16	500 to 125	Single-ended	4.096	SPI	48-lead TQFP, 48-lead LFCSP	Integrated PGA, user-programmable ranges
AD7606	8	8	16	200	Single-ended	2.5	Parallel/SPI	16-lead TSSOP	8-channel DAS with 16-bit simultaneous sampling ADC
AD7357	2	2	14	4250	Differential	2.5 (external), 2.048 (internal)	SPI	24-lead TSSOP	14-bit simultaneous sampling, differential ADC
AD7264	2	2	14	1000	Differential	2.5 (external/internal)	SPI	24-lead TSSOP	Integrated analog input PGA and four comparators, simultaneous sampling ADC
AD7657	6	6	14	250	Single-ended	2.5 (external/internal)	Parallel/SPI	20-lead QSOP	*i*CMOS® simultaneous sampling ADC
AD7356	2	2	12	5000	Differential	2.5 (external), 2.048 (internal)	SPI	48-lead LQFP, 48-lead LFCSP	12-bit, 5 MSPS, simultaneous sampling, differential ADC
AD7352	2	2	12	3000	Differential	2.5 (external), 2.048 (internal)	SPI	64-lead LQFP	12-bit, 3 MSPS simultaneous sampling, differential ADC
AD7262	2	2	12	1000	Differential	2.5 (external/internal)	SPI	40-lead LFCSP	Integrated analog input PGA and four comparators, simultaneous sampling ADC
AD7658	6	6	12	250	Single-ended	2.5 (external/internal)	Parallel/SPI	64-lead LQFP	*i*CMOS, simultaneous sampling ADC

Precision Σ-Δ ADCs

Part Number	Resolution (Bits)	A_{IN} Channels	Min Input Range (V)	Max Input Range (V)	Peak-to-Peak (p-p) Resolutiown vs. ODR		Max Output Data Rate (SPS)	Power Supply Current Typ (mA)	On-Chip PGA	On-Chip A_{IN}/Ref Buffer	On-Chip Current Source	On-Chip Reference	Features
					Resolution (p-p) (Bits)	@ Data Rate (Hz)							
Low Power, Low Noise Σ-Δ ADCs													
AD7701	16	1		$\pm V_{REF}$	16	4000	4000	5					Update rate is 4 kHz, bandwidth is 10 Hz, programmmable LPF
AD7703	20	1		$\pm V_{REF}$	17	4000	4000	5					Update rate is 4 kHz, bandwidth is 10 Hz
AD7705	16	2	$\pm V_{REF}/128$	$\pm V_{REF}$	16	60	500	0.5	•	•			
AD7706	16	3	$\pm V_{REF}/128$	$\pm V_{REF}$	16	60	500	0.5	•	•			
AD7707	16	3	$\pm V_{REF}/128$	$\pm 4\ V_{REF}$	16	60	500	0.5	•	•			
AD7714	24	5	$\pm V_{REF}/128$	$\pm V_{REF}$	17.5	60	1000	0.55	•	•			
AD7715	16	1	$\pm V_{REF}/128$	$\pm V_{REF}$	16	60	500	0.55	•	•			
AD7708	16	10	$\pm 1.024\ V_{REF}/128$	$\pm 1.024\ V_{REF}$	16	20	1365	1.3	•	•			
AD7709	16	4	$\pm 1.024\ V_{REF}/128$	$\pm 1.024\ V_{REF}$	16	20	105	1.25	•	•	•		
AD7718	24	10	$\pm 1.024\ V_{REF}/128$	$\pm 1.024\ V_{REF}$	18.5	20	1365	1.3	•	•			
AD7719	24	5	$\pm 1.024\ V_{REF}/128$	$\pm 1.024\ V_{REF}$	18.5	20	105	1.5	•	•	•		Dual ADC
AD7782	24	2	$\pm 1.024\ V_{REF}/16$	$\pm 1.024\ V_{REF}$	18.5	20	19.79	1.3	•	•			Read only
AD7783	24	1	$\pm 1.024\ V_{REF}/16$	$\pm 1.024\ V_{REF}$	18.5	20	19.79	1.3	•	•	•		Read only
AD7710	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	17.5	60	1000	5	•		•		
AD7711	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	17.5	60	1000	5	•		•		Two current sources
AD7711A	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	17.5	60	1000	5	•		•		One current source
AD7712	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	17.5	60	1000	5	•				
AD7713	24	3	$\pm V_{REF}/128$	$\pm V_{REF}$	16	20	206	1.1	•		•		
AD7787	24	2		$\pm V_{REF}$	19	16.6	120	0.13		•			Ultralow power, small footprint
AD7788	16	1		$\pm V_{REF}$	16	16.6	16.6	0.07					Ultralow power, small footprint
AD7789	24	1		$\pm V_{REF}$	19	16.6	16.6	0.07					Ultralow power, small footprint
AD7790	16	1	$\pm V_{REF}/8$	$\pm V_{REF}$	16	16.6	120	0.13		•			Ultralow power, small footprint
AD7791	24	1		$\pm V_{REF}$	19	16.6	120	0.13		•			Ultralow power, small footprint
AD7170	12	1		$\pm V_{REF}$	12	125	125	0.11					Low power, ease of use, small footprint
AD7171	16	1		$\pm V_{REF}$	16	125	125	0.11					Low power, ease of use, small footprint
AD7780	24	1			18.7	16.7	16.7	0.42	•				Pin programmable
AD7781	20	1			18.7	16.7	16.7	0.42	•				Pin programmable
AD7785	20	3	$\pm V_{REF}/128$	$\pm V_{REF}$	18.6	16.6	470	0.4	•	•	•	•	Low power and low noise
AD7792	16	3	$\pm V_{REF}/128$	$\pm V_{REF}$	16	16.6	470	0.4	•	•	•	•	Low power and low noise
AD7793	24	3	$\pm V_{REF}/128$	$\pm V_{REF}$	18.6	16.6	470	0.4	•	•	•	•	Low power and low noise
AD7794	24	6	$\pm V_{REF}/128$	$\pm V_{REF}$	18.6	16.6	470	0.4	•	•	•	•	Low power and low noise
AD7795	16	6	$\pm V_{REF}/128$	$\pm V_{REF}$	16	16.6	470	0.4	•	•	•	•	Low power and low noise
AD7796	16	1		$\pm V_{REF}/128$	15.5	16.6	123	0.25	•	•			Low power and low noise
AD7797	24	1		$\pm V_{REF}/128$	15.5	16.6	123	0.25	•	•			Low power and low noise
AD7798	16	3	$\pm V_{REF}/128$	$\pm V_{REF}$	16	16.6	470	0.3	•	•			Low power and low noise
AD7799	24	3	$\pm V_{REF}/128$	$\pm V_{REF}$	18.6	16.6	470	0.38	•	•			Low power and low noise
Low Noise, High Output Data Rate Σ-Δ ADCs													
AD7732	24	2	$\pm 2\ V_{REF}$	$\pm 4\ V_{REF}$	16	2000	15,400	14.5		•			Fast channel switching, ±10 V input range
AD7734	24	4	$\pm 2\ V_{REF}$	$\pm 4\ V_{REF}$	16	2000	15,400	14.5		•			Fast channel switching, ±10 V input range
AD7738	24	8	$\pm V_{REF}/4$	$\pm V_{REF}$	16	8500	15,400	14.5		•			Fast channel switching
AD7739	24	8	$\pm V_{REF}/4$	$\pm V_{REF}$	16	4000	15,100	14.5		•			Fast channel switching
AD7730	24	2	$\pm 1.024\ V_{REF}/256$	$\pm 1.024\ V_{REF}/32$	17	200	3800	13	•	•			Bridge transducer ADC
AD7730L	24	2	$\pm 1.024\ V_{REF}/256$	$\pm 1.024\ V_{REF}/32$	17	200	7600	13	•	•			Bridge transducer ADC
AD7731	24	5	$\pm 1.024\ V_{REF}/128$	$\pm 1.024\ V_{REF}/2$	17	800	6400	13.5	•	•			Bridge transducer ADC
AD7190	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	22.5	4.7	4800	6	•	•			Low noise
AD7191	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	21.5	10	120	4.35	•	•			Pin programmable, low noise
AD7192	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	22	4.7	4800	4.35	•	•			Low noise
AD7193	24	4	$\pm V_{REF}/128$	$\pm V_{REF}$	22	4.7	4800	4.65	•	•			Low noise

Precision Σ-Δ ADCs (continued)

Part Number	Resolution (Bits)	A_{IN} Channels	Min Input Range (V)	Max Input Range (V)	Peak-to-Peak (p-p) Resolutiown vs. ODR		Max Output Data Rate (SPS)	Power Supply Current Typ (mA)	On-Chip PGA	On-Chip A_{IN}/Ref Buffer	On-Chip Current Source	On-Chip Reference	Features
					Resolution (p-p) (Bits)	@ Data Rate (Hz)							
Low Noise, High Output Data Rate Σ-Δ ADCs (continued)													
AD7194	24	8	$\pm V_{REF}/128$	$\pm V_{REF}$	22	4.7	4800	4.65	•	•			Low noise
AD7195	24	2	$\pm V_{REF}/128$	$\pm V_{REF}$	22.5	4.7	4800	6	•	•			Low noise with ac excitation
AD7172-2 ***New***	24	4		$\pm V_{REF}$	24/17.4	1.25/31,250	31,250	1.5		•		•	True rail-to-rail input buffer, ultralow noise and fast settling
AD7172-4 ***New***	24	8		$\pm V_{REF}$	24/17.4	1.25/31,250	31,250	1.5		•		•	True rail-to-rail input buffer, ultralow noise and fast settling
AD7173-8 ***New***	24	16		$\pm V_{REF}$	24/17.5	1.23/31.25	31,250	1.5		•		•	Low noise and fast channel switching
AD7175-2 ***New***	24	4		$\pm V_{REF}$	24/17.4	20/250,000	250,000	8.8		•		•	True rail-to-rail input buffer, ultralow noise and fast settling
AD7176-2 ***New***	24	4		$\pm V_{REF}$	17.5	250,000	250,000	7.8				•	Ultralow noise and fast settling
Isolated Precision Σ-Δ ADCs													
AD7400	16	1	±0.2	±0.32	16	10,000		6					Isolated Σ-Δ
AD7401	16	1	±0.2	±0.32	16	20,000		6					Isolated Σ-Δ, external clock
AD7400A	16	1	±0.25	±0.32	16	10,000		15.5					Isolated Σ-Δ
AD7401A	16	1	±0.25	±0.32	16	20,000		17					Isolated Σ-Δ, external clock
AD7403 ***New***	16	1	±0.25	±0.32	16	20,000		36					Enhanced SINAD and offset drift, external clock
AD7405 ***New***	16	1	±0.25	±0.32	16	20,000		43					LVDS interface, enhanced SINAD and offset drift, external clock

Wideband Precision and Oversampling ADCs

Part Number	A_{IN} Channels	Resolution (Bits)	Dynamic Range (dB)	Max Data Rate/SNR Typ	Min Data Rate/SNR Typ	Programmable Oversampling Rate	INL Error Typ (ppm)	Power (mW)	On-Chip A_{IN}/Ref Buffer	Interface	Package
AD7760	1	24	120	2.5 MSPS/100 dB	78 kSPS/112 dB	8× to 256×	8	661	•	Parallel	64-lead TQFP
AD7762	1	24	120	625 kSPS/107 dB	78 kSPS/112 dB	32× to 256×	8	661	•	Parallel	64-lead TQFP
AD7763	1	24	120	625 kSPS/107 dB	78 kSPS/112 dB	32× to 256×	8	651	•	Serial	64-lead TQFP
AD7764	1	24	115	312 kSPS/104 dB	78 kSPS/109 dB	64×, 128×, 256×	14	160	•	Serial	28-lead TSSOP
AD7765	1	24	115	156 kSPS/107 dB	78 kSPS/109 dB	128×, 256×	14	160	•	Serial	28-lead TSSOP
AD7766	1	24	109.5	128 kSPS/108.5 dB		8×	6	15		Serial	16-lead TSSOP
AD7766-1	1	24	112.5	64 kSPS/111.5 dB		16×	6	10.5		Serial	16-lead TSSOP
AD7766-2	1	24	115.5	32 kSPS/113.5 dB		32×	6	8.5		Serial	16-lead TSSOP
AD7767	1	24	109.5	128 kSPS/108.5 dB		8×	3	15		Serial	16-lead TSSOP
AD7767-1	1	24	112.5	64 kSPS/111.5 dB		16×	3	10.5		Serial	16-lead TSSOP
AD7767-2	1	24	115.5	32 kSPS/113.5 dB		32×	3	8.5		Serial	16-lead TSSOP

I^2C refers to a communications protocol originally developed by Philips Semiconductors (now NXP Semiconductors).

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ANALOG DEVICES