High-Speed A/D Converters

cost increases

Part Number	Resolution (Bits)	Sample Rate (Msps max)	Input Channels	Voltage Reference*	Data-Bus Interface	Supply Voltage (V)	Input Ranges (V)	EV Kit	Features	Price† 1000-up ($)
MAX1002	6	60	2	I	Parallel	+5	125, 250, 500mVp-p	Yes	Dual, internal oscillator and PGA	3.40
MAX1003	6	90	2	I	Parallel	+5 & +3.3	125, 250, 500mVp-p	Yes	Dual, internal oscillator and PGA	3.96
MAX1011	6	90	1	I	Parallel	+5 & +3.3	125, 250, 500mVp-p	Yes	Single, internal oscillator and PGA	2.95
MAX1431	8	20	1	I	Parallel	+3	±1	Yes	Internal reference, wideband T/H, 3V operation	††
MAX1430	8	40	1	I	Parallel	+5	±2	Yes	Internal reference, wideband T/H, low power	††
MAX1114‡‡	8	150	1	E	Parallel	-5.2	0 to +2	Yes	Wide bandwidth, high SNR	†††
MAX100	8	250	1	E	Parallel	+5 & -5.2	±0.27 differential	Yes	50Ω I/P, highest bandwidth	†††
MAX1125‡‡	8	300	1	E	Parallel	-5.2	0 to +2	Yes	Wide bandwidth	†††
MAX101A	8	500	1	E	Parallel	+5 & -5.2	±0.25 differential	Yes	50Ω I/P, highest bandwidth, demuxed outputs	†††
MAX1150‡‡	8	500	1	E	Parallel	-5.2	0 to +2	Yes	Wide bandwidth, demuxed output	†††
MAX106	8	600	1	I/E	Parallel	±5	±0.25 differential	Yes	High-performance ADC, demuxed outputs	†††
MAX1151‡‡	8	750	1	E	Parallel	-5.2	0 to +2	Yes	Wide bandwidth, demuxed output	†††
MAX108	8	1500	1	I/E	Parallel	±5	±0.25 differential	Yes	High-performance ADC, demuxed outputs	†††
MAX104	8	1000	1	I/E	Parallel	±5	±0.25 differential	Yes	7.3 ENOB at 500MHz f_{IN}, demuxed outputs	†††
MAX1426	10	10	1	I/E	Parallel	+5	±2 differential	Yes	High-performance, low-power ADC with ref	††
MAX1160‡‡	10	20	1	E	Parallel	+5	±2	Yes	5pF input capacitance	†††
MAX1425	10	20	1	I/E	Parallel	+5	±2 differential	Yes	High-performance, low-power ADC with ref	††
MAX1161‡‡	10	40	1	E	Parallel	+5	±2	Yes	5pF input capacitance	†††
MAX1424	10	40	1	I/E	Parallel	+5	±2 differential	Yes	High-performance, low-power ADC with ref	††
MAX1444/6/8	10	80/60/40	1	I	Parallel	+3	±2	Yes	Wide bandwidth, high SNR, low power	††
MAX1170‡‡	12	10	1	E	Parallel	+5	±2	Yes	Low input capacitance, high SFDR	†††
MAX1423	12	10	1	I	Parallel	+3	±1	Yes	High performance, low power	††
MAX1171‡‡	12	20	1	E	Parallel	+5	±2	Yes	Low input capacitance, high SFDR	†††
MAX1422	12	20	1	I	Parallel	+3	±1	Yes	High performance, low power	††
MAX1172‡‡	12	30	1	E	Parallel	+5	±2	Yes	Low input capacitance, high SFDR	†††
MAX1420/1	12	60/40	1	I	Parallel	+3	±1	Yes	High performance, low power	††
MAX1205	14	1	1	E	Parallel	+5	±4 differential	Yes	Self-calibrating, high SFDR, low distortion	11.50
MAX1201	14	2.2	1	E	Parallel	+5	±4 differential	Yes	Self-calibrating, high SFDR, low distortion	36.52
MAX1200	16	1	1	E	Parallel	+5/+3	±4 differential	Yes	Self-calibrating, high SFDR, low distortion	26.96

High-Speed D/A Converters

Part Number	Resolution (Bits)	Output Type**	Settling Time (ns)	No. of DACs	Voltage Reference*	Data-Bus Interface	Supply Voltage (V)	EV Kit	Features	Price† 1000-up ($)
MAX5189/91	8	V	–	2	I	Parallel	+2.7 to +5.5	Yes	40MHz, dual, simultaneous/alternate-phase update	3.44
MAX5190	8	V	–	1	I	Parallel	+2.7 to +5.5	Yes	40MHz, single	††
MAX5140‡‡	8	I	3	1	E	Parallel	-5.2	–	400Msps high-resolution video DAC with controls	†††
MAX5018‡‡	8	I	4.5	1	E	Parallel	-5.2	–	165/275Msps video DAC with controls	†††
MAX5186/88	8	I	–	2	I	Parallel	+2.7 to +5.5	Yes	40MHz, dual, simultaneous/alternate-phase update	3.44
MAX5187	8	I	–	1	I	Parallel	+2.7 to +5.5	Yes	40MHz, single	††
MAX5183/85	10	V	–	2	I	Parallel	+2.7 to +5.5	Yes	40MHz, dual, simultaneous/alternate-phase update	4.41
MAX5184	10	V	–	1	I	Parallel	+2.7 to +5.5	Yes	40MHz, single	††
MAX5180/82	10	I	–	2	I	Parallel	+2.7 to +5.5	Yes	40MHz, dual, simultaneous/alternate-phase update	4.41
MAX5181	10	I	–	1	I	Parallel	+2.7 to +5.5	Yes	40MHz, single	††
MAX555	12	V	0.5	1	E/MDAC	Parallel	-5.2	Yes	300Msps update rate, 72dB SFDR	†††
MAX5012‡‡	12	V	13	1	E	Parallel	-5.2	Yes	High-speed, 100MHz, ECL inputs	†††
MAX5013‡‡	12	V	13	1	E	Parallel	+5, -5.2	Yes	High-speed, 100MHz, TTL inputs	†††

* MDAC = 4-quadrant multiplying capability, I = internal reference, E = external reference.

** V = voltage, I = current

‡‡ Not available in Japan.

††† Contact factory for pricing.

† Prices provided are for design guidance and are for the lowest grade, commercial temperature parts (FOB USA). International prices will differ due to local duties, taxes, and exchange rates. Prices are subject to change. Not all packages are offered in 1k increments, and some may require minimum order quantities.

†† Future product—contact factory for pricing and availability. Specifications are preliminary.