Instrumentation/Difference/Current Sense/Variable Gain Amplifier Quick Selection Guide

Instrumentation/Difference/Current Sense/Variable Gain Amplifiers

Instrumentation Amplifiers

General Purpose

Single	Dual	Input Offset Voltage
AD8221	AD8222	25 µV/60 µV
AD8422		40 µV
AD8295		60 µV
AD8226	AD8426	100 µV
AD8227		100 µV
AD8290		
AD620		125 µV
AD623		200 µV
AD8223		250 µV
AD8220	AD8224	250 µV/300

Low Power (I_{SY} < 100 µA)

Single	Dual	Supply Current
AD8236		40 µA
AD8235		40 µA
AD8420		80 µA
AD627		85 µA

Low Noise (e_N < 5 nV/√Hz)

Single	Dual	Input Voltage Noise
AD8429		1 nV/√Hz
AD8428		1.5 nV/√Hz, fixed G = 2000
AD8421		3.2 nV/√Hz

Low Drift (<1 µV/°C)

Single	Dual	Voltage Drift
AD8230		0.05 µV/°C
AD8231		0.05 µV/°C
AD8553		0.1 µV/°C
AD8237		0.2 µV/°C
AD8293G80/G160		0.3 µV/°C, fixed gains
AD8228		0.8 µV/°C, fixed gains

Programmable Gain

Single	Dual	Gains
AD8231		1, 2, 4, 8, 16, 32, 64, 128
AD8250		1, 2, 5, 10
AD8251		1, 2, 4, 8
AD8253		1, 10, 100, 1000

Difference Amplifiers (Low Gain)

Low Distortion / High Speed

Single	Dual	Gains
	AD8270	0.5, 1, 2
AD8271		0.5, 1, 2
AD8274	AD8273	0.5, 2
AD8276	AD8277	1
AD8278	AD8279	0.5, 2

High CM Voltage

Single	Dual	Common-Mode Range
AD8479		±600 V
AD629		±270 V
AD628		±120 V

Low Power

Single	Dual	Supply Current
AD8278	AD8279	200 µA
AD8276	AD8277	220 µA

Level Translation

Single	Dual	Translate
AD8275		±10 V to +4 V
AD8475		±10 V to ±4 V (diff)

Current Sense Amplifiers

Unidirectional

Single	Dual	Offset Voltage Drift
AD8219		1 µV/°C
AD8217		1 µV/°C
AD8212		10 µV°/C
AD8203		10 µV/°C, high gain
AD8202		10 µV/°C, high gain
AD8211	AD8213	12 µV/°C
AD8215		18 µV/°C
AD8209		20 µV/°C, high gain
AD8208		20 µV/°C, high gain

Bidirectional

Single	Dual	Offset Voltage Drift
AD8417		0.4 µV/°C
AD8418/A		1 µV°/C
AD8218		1 µV/°C
AD8207		1 µV/°C
AD8210		8 µV/°C
AD8216		20 µV/°C, high gain
AD8206		15 µV/°C TYP, high gain
AD8205		15 µV/°C TYP, high gain

Threshold Detector

Single	Dual
AD8214	

Variable Gain Amplifiers

Analog Control

Single	Dual	Quad	Gain Range
	AD600		0 dB to 40 dB
	AD602		–10 dB to +30 dB
AD603			–11 dB to +31 dB, 9 dB to 51 dB
	AD604		0 dB to 48 dB, 6 dB to 54 dB
AD605			–14 dB to +34 dB, 0 dB to 48 dB
		AD8264	0 dB to 24 dB
AD8330			–30 dB to +70 dB
AD8331			–5 dB to +43 dB, 7 dB to 55 dB
	AD8332	AD8334	–5 dB to +43 dB, 7 dB to 55 dB
		AD8335	–10 dB to +38 dB, –2 dB to +46 dB
AD8336			–14 dB to +46 dB, 0 dB to 60 dB
AD8337			0 dB to 24 dB
AD8338			0 dB to 80 dB
AD8340			–2 dB to –32 dB
AD8341			–4 dB to –34 dB
AD8367			–2.5 dB to +42.5 dB
AD8368			–12 dB to +22 dB
ADL5330			–34 dB to +22 dB
ADL5331			–15 dB to +15 dB
	ADL5336		–15 dB to +20 dB
	ADL5390		–27 dB to +5 dB
ADL5391			0 dB to –42 dB
	ADRF6510		–5 dB to +45 dB
	ADRF6516		–5 dB to +45 dB, analog and digital control
	ADRF6518		–36 dB to +66 dB, analog and digital control

Digital Control

Single	Dual	Gain Range
AD8260		30 dB
	AD8366	4.5 dB to 20.5 dB
AD8369		–5 dB to +40 dB
AD8370		–11 dB to +17 dB, 6 dB to 34 dB
	AD8372	–9 dB to +32 dB
AD8375		–4 dB to +20 dB
	AD8376	–4 dB to +20 dB
ADL5201		–11.5 dB to +20 dB
	ADL5202	–11.5 dB to +20 dB
ADL5240		–13.5 dB to +18 dB
ADL5243		3.5 dB to 35 dB
ADL5592		60 dB

Digitally Controlled Line Drivers

Single	Dual	Gain Range
AD8324		–25.5 dB to +33.5 dB
AD8325		–29.45 dB to +30 dB
ADA4320-1		–27 dB to +32 dB

ANALOG DEVICES