



ADALP2000 Analog Parts Kit

ICs Qty. Description **Amplifiers** 1 AD8226 instrumentation amp (BOB*) 1 ADTL082 JFET op amp (BOB*) 1 AD8542 CMOS rail-to-rail op amp (BOB*) 2 OP482 high speed JFET op amp (14-lead PDIP) 1 OP484 precision rail-to-rail I/O op amp (14-lead PDIP) 2 OP27 low noise, precision op amp (8-lead PDIP) 2 OP37 precision op amp (8-lead PDIP) 2 OP97 low power, high precision op amp (8-lead PDIP) 1 LTC1541 micropower amp, comparator, reference (BOB*) Sensors 1 AD8210 current shunt monitor (BOR*) 1 AD22151 magnetic field sensor (BOB*) ADXL327 3-axis accelerometer (BOB*) 2 AD22100 voltage temperature sensor (TO-92) 1 AD592 current temperature sensor (TO-92) 1 TMP01 temperature controller (8-lead PDIP) 1 Electret microphone 1 10 kΩ thermistor 1 OP999 PIN photodiode

Power



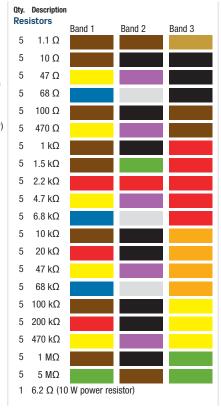
- 1 LT3092 programmable current source (BOB*)
- 1 LTM8067 isolated dc-to-dc converter (BOB*)
- 1 LT3080 adjustable, 1.1 A LD0 (T0-220)
- 1 LT1054 switched-capacitor regulator (8-lead PDIP)

Data Conversion

- 1 AD654 voltage-to-frequency converter (8-lead PDIP)
- 1 AD5626 12-bit nanoDAC+ (BOB*)
- 1 AD7091R-5 12-bit, 4-channel, I2C ADC (BOB*)

Misc ICs

- AD584 programmable V_{RFF} (8-lead PDIP)
- 2 AD8561 comparator (8-lead PDIP)
- 1 LTC1485 differential bus transceiver (8-lead PDIP)
- 1 LTC1043 precision switched-cap block (8-lead PDIP)



Qty.	Description	
Pote	entiometers	
1	5 kΩ	

10 kO 50 kO

Capacitors 20 nE

_	J9 pr
2	100 pF
2	0.001 µF
2	$0.0047 \mu F$
2	0.01 µF
2	0.047 µF
	0.1 µF
2	1 µF
2	4.7 µF
2	10 µF
2	22 µF
2	47 µF
	220 µF

Transistors

- 2N3904 small signal NPN 2N3906 small signal PNP
- IRF510 power MOSFET TIP31CFS NPN power
- TIP32CFS PNP power
- ZVN2110A N-channel DMOS FET
- ZVN3310 N-channel MOS FET
- 2 ZVP2110A P-channel MOS FET

Logic

- SN74HC08 quad AND gate (14-lead PDIP) SN74HC32 quad OR gate (14-lead PDIP)
- SN74HC273 octal FF (14-lead PDIP)
- SN74HC04 hex inverter (14-lead PDIP)

Qty. Description

LEDs

- 2 Green Yellow
- 2 Red

InfraRed

- QFD123 infrared LFD
- QSD123 infrared transistor

Diodes

- 1N3064 small signal diode
- 1N4001 general-purpose plastic rectifier
- 1N4735 1 W Zener diode
- 4 1N914 fast switching diode

Inductors

- RFB0807-1R0L 1.0 uH
- RFB0807-100L 10 µH
- RFB0807-101L 100 uH
 - coilcraft.com/students RFB0807-102L 1 mH

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- RFB0807-103L 10 mH
- HPH1-1400L Hexa-Path magnetics (BOB*) HPH1-0190L Hexa-Path magnetics (BOB*)

Other

- Speaker
- Solderless breadboard
- Screwdriver: flathead
- USB connector (BOB*)
- Audio connector (BOB*)
- 45 Jumper wires with pin ends

RoHS Compliant

^{*}Breakout board for surface-mount device.

