

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 (BOB*)
- 1 AD22151 magnetic field sensor (BOB*)
- 1 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 ADP3300 3.3 V, 50 mA, LDO linear regulator (BOB*)
- 1 LT3092 programmable current source (BOB*)
- 1 LTM8067 isolated dc-to-dc converter (BOB*)
- 1 LT3080 adjustable, 1.1 A LDO (TO-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, °C ADC (BOB*)

Misc ICs

- 1 AD584 programmable V_{REF} (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

Resistors

Qty.	Description	Band 1	Band 2	Band 3
5	1.1 Ω			
5	10 Ω			
5	47 Ω			
5	68 Ω			
5	100 Ω			
5	470 Ω			
5	1 kΩ			
5	1.5 kΩ			
5	2.2 kΩ			
5	4.7 kΩ			
5	6.8 kΩ			
5	10 kΩ			
5	20 kΩ			
5	47 kΩ			
5	68 kΩ			
5	100 kΩ			
5	200 kΩ			
5	470 kΩ			
5	1 MΩ			
5	5 MΩ			
1	6.2 Ω (10 W power resistor)			

Qty. Description

Potentiometers

- 1 5 kΩ
- 2 10 kΩ
- 1 50 kΩ

Capacitors

- 2 39 pF
- 2 100 pF
- 2 0.001 μF
- 2 0.0047 μF
- 2 0.01 μF
- 2 0.047 μF
- 2 0.1 μF
- 2 1 μF
- 2 4.7 μF
- 2 10 μF
- 2 22 μF
- 2 47 μF
- 1 220 μF

Transistors

- 3 2N3904 small signal NPN
- 3 2N3906 small signal PNP
- 1 IRF510 power MOSFET
- 1 TIP31CFS NPN power
- 1 TIP32CFS PNP power
- 1 ZVN2110A N-channel DMOS FET
- 2 ZVN3310 N-channel MOS FET
- 2 ZVP2110A P-channel MOS FET

Logic

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

Qty. Description

LEDs

- 2 Green
- 2 Yellow
- 2 Red

InfraRed

- 1 QED123 infrared LED
- 1 QSD123 infrared transistor

Diodes

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

Inductors

- 2 RFB0807-1R0L 1.0 μH
- 2 RFB0807-100L 10 μH
- 2 RFB0807-101L 100 μH
- 2 RFB0807-102L 1 mH
- 2 RFB0807-103L 10 mH
- 1 HPH1-1400L Hexa-Path magnetics (BOB*)
- 1 HPH1-0190L Hexa-Path magnetics (BOB*)


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Other

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

*Breakout board for surface-mount device.

