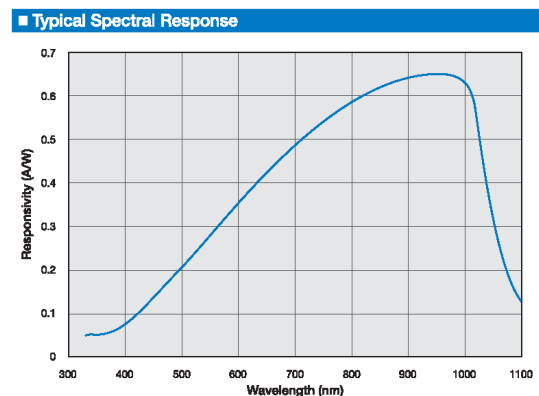
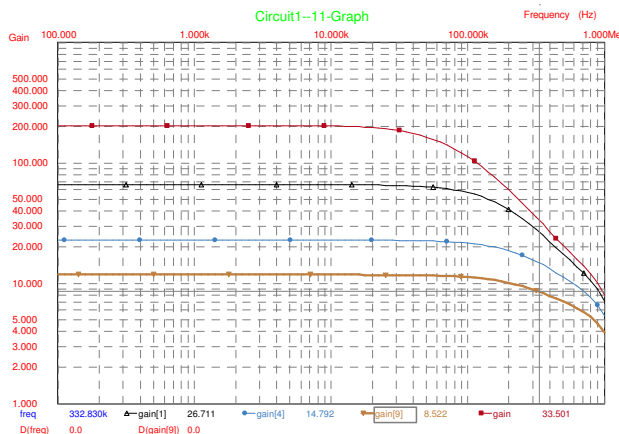


# 300kHz Si Large-Area Adjustable Gain Balanced Receiver (Open Beam)

These balanced receivers take the headache out of aligning (and re-aligning) your beams onto the photodetectors. Ideal for FM spectroscopy, absorption spectroscopy, or ellipsometry, these balanced photoreceivers can make all the difference when you're trying to see a small signal. They can even eliminate the need for lock-in amplifiers, enabling you to cancel out laser-intensity noise in any experimental setup that produces either a reference signal or balanced optical signals. These photoreceivers can operate off batteries or your own DC power supply.

Wavelength range is 400-1070 nm.

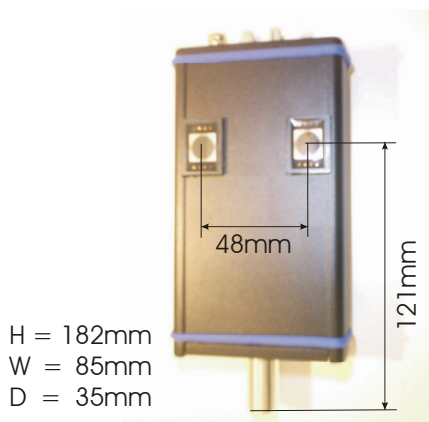


### Test data:

- Power supply: 9V cell battery
- Bandwidth: 300kHz @ gain=12
- Maximum photo current: 65mA
- Maximum optical power @ 970nm: 100mW
- Gain: 12 ... 200
- Offset (max.): 90µA
- Optical Background Adjust: >138µW
- Additional PD1 gain: 0.5 ... 1000

### Single photodiode data:

- Area: 100mm<sup>2</sup>
- Diameter of active area: 11.28mm
- Peak Responsivity Wavelength ( $\lambda_p$ ): 970nm
- Responsivity at  $\lambda_p$  (min.): 0.6A/W
- Responsivity at  $\lambda_p$  (typ.): 0.65A/W
- Capacitance (0V typ.): 1500pF
- Capacitance (-10V typ.): 300pF
- Dark Current (-10V typ.): 2nA
- Dark Current (-10V max.): 25nA
- NEP (-10V, 970nm, typ.):  $3.9 \cdot 10^{-14} \text{ W}/\sqrt{\text{Hz}}$
- Reverse Voltage (max.): 30V
- Rise Time (-10V, 632nm, 50Ω, typ.): 43ns
- Temp Range (operating): -10 ... 60°C
- Temp Range (storage): -20 ... 70°C



Document: C:\\_workfiles\Receiver\Receiver6.doc  
 Note: Specification are subject to change without further notice

