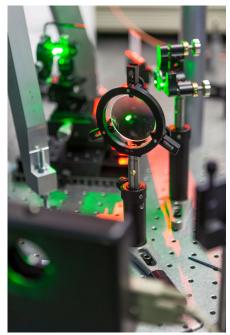
Dual Balanced Detector Amplifier Design Note #117 Precision High Speed, Low Noise Analog Design



Optical interferometry depends upon precise adjustment of light paths. High speed circuitry designed by Orchid faithfully converts light pulses to electrical signals for further processing.



"Orchid's Revision One design worked flawlessly. We easily tweaked the bandwidth and were capturing images in real time from first power up. Our production cost is one tenth of that had we purchased this design off-theshelf — and we got it in our form-factor as well. Wow!!

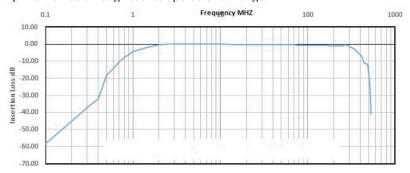
- Director of OCT Design

Dual Balanced Detector Amplifier

Used for laser interferometry, balanced detector amplifiers must operate at high speed and low noise with precise channel to channel balance to be effective. Detector bias, device coupling, controlled impedance and RF design techniques are needed to achieve optimum performance. Orchid's unique analog design expertise achieves remarkable performance results. And – production costs are lower than purchased off the shelf!

High Bandwidth and Low Noise

Operating with a working bandwidth of 300MHz, Orchid's low noise dual balanced amplifier is flat throughout its operational range.



Optical to Electronic Interface

The optical to electronic interface requires precise electro-mechanical design. Physical coupling and electrical distances effect overall performance. Orchid's ability to custom design the optical mounting hardware is critical to achieving bandwidth performance.

Orchid Technologies: Precision Analog Design

The development of custom electronic products for our OEM clients is Orchid's entire business. The design of high speed custom analog amplifiers with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!





ORCHID TECHNOLOGIES
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Custom Engineering From Concept to Production

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