

John McDonald

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Summary: Outstanding grasp of optics and sound product development principles. Clear thinker and excellent communicator. Significant entrepreneurial experience and management experience to senior officer level.

Technical: Systems guru level knowledge of infrared phenomenology and expert designer of optical instruments including microscopes, cryogenic cameras, semiconductor test equipment, and night vision devices. Skilled in visible and infrared microscopy, precision motion systems.

Experience *Current* Consulting to start up **Quantum Focus Instruments Corp.** since 1997, designing and marketing microscopy equipment for 2 distinct semiconductor markets, failure analysis and RFIC thermal mapping. These microscopes use passive, cryogenic NIR and SWIR sensors and direct laser stimulus to reveal circuit defects. They range from \$150K to \$1M selling price. I contribute detailed technical expertise, and instrument design as well as market and business development. I travel worldwide, presenting technology, assessing trends, developing partners and sales teams and training users. My compensation includes equity. In **Sept. 2000** I served for 1 year at **JMAR Precision** in Chatsworth, CA as **V.P. of Business Development**, part of a friendly attempt by JMAR to purchase QFI. I managed **all engineering** activities, and marketing. The company suffered considerable leadership turnover before I arrived and required enormous resourcefulness to manage delivery obligations whilst restoring morale and restaffing & developing much needed future products. Unfortunately the year coincided with a sharp semiconductor downturn so I also managed considerable downsizing. After a year of indecision the Chair of JMAR opted not to acquire QFI so I returned to QFI. In prior consulting I assisted **Lawrence Livermore National Lab** (9 months) to select and deploy software to manage the production of thousands of optics for their billion dollar plus NIF laser facility. Prior to that I worked with a start up bio-microscope firm (Edge Scientific). We adapted a novel microscope design for manufacture. At Intelligent Medical Systems I worked out how to calibrate a very low cost sensor to meet FDA requirements. This was the first successful mass market ear thermometer. **1981-1991** Night Vision project engineer with Hughes Aircraft (to '87) to EO systems guru and rapid development manager with FLIR Inc. (to '91).

Peer Recognition Annual seminar speaker (90 minutes) on exotic microscopy at semiconductor failure analysis conference ISTFA.
Authored Microscopy section of ISTFA desk reference.
Invited speaker to Bio-Medical conference (really!) hosted near LAX by Auto Immune Research Foundation, Thousand Oaks, CA.
Board Director on three charitable organizations.

Education B.S. Physics, Magna Cum Laude. Southern Oregon University, 1981.
