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## Microwave Instruments: The Past and the Future

*R. W. Anderson Hewlett-Packard*

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## Early Contributions to Microwave Components at SRI

*Seymour B. Cohn of S.B. Cohn Associates*

**Abstract:** In 1953, I joined a small group of engineers at Stanford Research Institute working on novel kinds of microwave antennas. From 1953 to 1960, when I left SRI, our group approximately tripled in size studying new kinds of microwave filters, couplers, and other components, as well as doing further investigation of antennas. These engineers became widely known throughout the microwave profession by their dozens of published and oral papers. In this presentation I shall describe the significance of this work, while further expansion of these efforts after I left SRI will be described by Professor George Matthaei.

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## Some Early Passive Microwave Circuit Contributions in the Bay Area

*George L. Matthaei of University of California, Santa Barbara and Superconductor Technologies, Inc.*

**Abstract:** In the middle of this century considerable creative microwave activity was taking place at companies and universities in the Bay Area. The author will briefly discuss some groundbreaking contributions to the technology of passive microwave circuits made during this time period by various individuals.

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## Bay Area's Solid State Microwave Device Heritage

*J. S. Barrera of Samsung Microwave Semiconductor*

**Abstract:** While it is well-known that much of the progress in microwave power generation from tubes has occurred over the years in the California Bay Area, it should also be known that much significant activity in the solid state microwave device field has its roots here as well. From early 1960s work in high speed diodes at Hewlett-Packard Associates to some of the earliest and most successful work in Gunn diode oscillators and reflection amplifiers at Fairchild Corporation, Varian and Associates and Hewlett-Packard Laboratories in the mid 1960s through the 1970s to ground breaking work in the whole area of microwave field effect transistors, microwave integrated circuits and hybrid circuits, the Bay Area heritage is both important and notable. The contributory trend continues to this day with a fury of activity in the telecommunications area with invention and new product introduction occurring on a regular basis. A brief chronicling of some of the key events from 1960 onward will be presented.

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## Electron Beam Devices

*C. Loeb of CPI, Inc.*