

Kurt Vetter

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<http://www.rhichome.bnl.gov/RHIC-RF/vetter/llrf.html>

Summary of Qualifications

Analog, Digital, and Microwave circuit design from DC to 2GHz utilizing lumped and distributed methods. Single and multi-mode fiber optic circuit design. NTSC video design experience.

Key Skills

Electronics – Digital design utilizing FPGA's. Analog lumped element design to 200MHz. Microwave distributed circuit design. Fiber Optic circuit design.

DSP – Real time C-programming on TI C40.

Computer – EEsof, SPICE, Microcap, Viewlogic, Altera MaxplusII
Matlab, Mathcad, C-programming.

Professional Experience

1997 – Present Brookhaven National Laboratory Research Engineer II RHIC RF Group

- Developed I,Q quadrature Linear Modulator for both 28MHz and 197MHz systems. Incorporated analog , digital and fiber optic design.
- Developed low noise 80MHz Direct Digital Synthesizer. VME card designed to provide stable programmable source for RF system.
- Developed RTDL and Eventlink data link interfaces to RF system via VSB.
- Developed 28MHz and 197MHz cogging circuits.

1996 – 1997 Cardion inc., Woodbury, NY Senior Engineer RF/Microwave Systems Group

- Developed 350W dual channel L-Band PAM/DPSK power amplifier/modulator for MODE-S solid state transmitter.
- Designed transmitter control and fault analysis interface.
- Developed thermal models of RF power transistors utilizing infrared microscope technique.
- High power microstrip dielectric analysis.

1995 – 1996 Lockheed Martin Farichild Systems, Syosset, NY Staff Engineer Video Systems Group

- Developed NTSC color camera utilizing phased locked CCD pixel clock.
- Responsible for medium volume production support.
- Utilized automated surface mount and flexible circuit technology.
- Responsible for fast turn-around prototype development.

1994 – 1995 **Math Associates, Amityville, NY**
Engineer Fiber Optic Product Development

- Developed 850nm and 1300nm single and multi-mode fiber optic transceivers.
- Analog circuit design to 120MHz.
- Developed FDM FM video/audio multi-drop fiber optic transceiver
- Responsible for short product development cycles.
- Support of high volume production.

1988 – 1994 **Cardion inc., Woodbury, NY**
Engineer RF/Microwave Systems Group

- Successfully worked on the development of S-Band radar frequency synthesizer.
- Responsible for phase noise characterization and analysis.
- Developed analog and digital circuits for radar control, and display interfacing.

Awards received Awarded “Hot Skills” \$5,000 bonus at Brookhaven National Laboratory for Analog, digital and RF circuit design accomplishments.

Publications “RF Beam Control System for the Brookhaven Relativistic Heavy Ion Collider, RHIC”, J.M. Brennan, A.Campbell, J.Delong, T.Hayes, E.Onillon, J.Rose, **K.Vetter**. *1998 European Particle Accelerator Conference, Sitges, Spain.*

Education **BEE** **SUNY STONY BROOK**, Stony Brook, NY 1992
Concentration – communication theory.

MSEE **POLYTECHNIC UNIVERSITY**, Farmingdale, NY 1998
Concentration - Fields and Waves, and communication theory.