

HIGH FREQUENCY

ELECTRONICS

Editorial Director

Gary Breed

gary@highfrequencyelectronics.com

Tel: 608-845-3965

Fax: 608-845-3976

Publisher

Scott Spencer

scott@highfrequencyelectronics.com

Tel: 603-472-8261

Fax: 603-471-0716

Associate Publisher

Tim Burkhard

tim@highfrequencyelectronics.com

Tel: 707-544-9977

Fax: 707-544-9375

Business office

High Frequency Electronics

7 Colby Court, Suite 4-436

Bedford, NH 03110

Editorial and Production office

High Frequency Electronics

6666 Odana Road, #508

Madison, WI 53719

Also Published Online at

www.highfrequencyelectronics.com

Subscriptions

Subscribe online at:

www.highfrequencyelectronics.com

or by mail to:

7 Colby Court, Suite 4-436,

Bedford, NH 03110

E-mail inquiries to: circulation@

highfrequencyelectronics.com

Advertising information on page 79

High Frequency Electronics, Vol. 2 No. 3, May 2003. Published bimonthly by Summit Technical Media, LLC, 7 Colby Court, Suite 4-436, Bedford, NH 03110. Subscriptions are free to qualified technical and management personnel involved in the design, manufacture and distribution of electronic equipment and systems at high frequencies. Send information requests by mail to the above address, by telephone to 603-472-8261, by fax to 603-471-0716, or by E-mail to editor@highfrequencyelectronics.com

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EDITORIAL

Take Advantage of Interaction with Your Colleagues

Gary Breed
Editorial Director

This is the time of year for the annual IEEE MTT-S International Microwave Symposium, the largest gathering of engineers, researchers and educators who specialize in RF and microwave technology. Conferences and trade shows like IMS 2003 remind us that person-to-person interaction is a strong force for engineering development and innovation.



I'm not just talking about attending technical presentations or visiting a prospective supplier's booth (although these are certainly important); I mean talking with other engineers, sharing ideas, discussing common problems. It means getting out of the focused environment of your employment and seeing a wider scope of activities. Your company's Board of Directors may not approve of your conversation with a colleague who works at a competitor, but I'll bet they are willing to forget about it if that discussion solves a knotty problem you have been struggling with for months!

It's always a struggle to balance your time between the technical papers and the exhibition hall. On the one hand, you came to learn about new engineering techniques, but you also need to learn about the advances that vendors are bringing to the products and tools that you will select for your next design assignment. Time management takes planning, so don't just show up—have an outline of where you need to be, and when.

My personal frustration is that I do not have enough time for the technical papers. Reading the Proceedings is OK, but it doesn't really replace the ability to ask questions, hear the questions of others, and listen to the speakers comments that are not contained in the paper. On the upside, I get a personal, in-depth update on products from many of the exhibiting companies. I get to learn something about a product's development, as well as what to look for in the future.

I hope to have personal conversations with some of you! I will spend at least a little time in our exhibit hall booth (#1056) so I can meet both old friends and new acquaintances. My own personal interaction with our readers is a great help in understanding what you need to know.

Whether you attend the MTT-S Symposium or not, be sure you get to other conferences from time to time. Small events are valuable when they focus on your area of interest; major events help you understand how your specialization fits into the larger world of high frequency electronics

Confessions of an Electromagnetic Environmentalist

Yes, I am an environmentalist when it comes to the electromagnetic spectrum—I believe it needs stewardship and wise management. In recent years, the regulatory oversight of the government has swung a bit too far in favor of “marketplace forces” and away from responsible oversight that is not just economically motivated.

It’s always a balancing act—how much and what kind of regulation is necessary for government to fulfill its responsibility to the public at large, while encouraging innovation and fostering the development of new technologies.

I love new ideas, and often use the example of how changes that allow greater unlicensed ISM band usage have resulted in many new, highly useful and convenient wireless services (with WLAN the most

notable). I applaud the openness that the FCC exhibits in the consideration of new technologies.

But there are areas that are truly national (or global), or which affect all citizens, not just individual consumers. One of those areas is interference—radio pollution.

An environmentalist hates pollution, and radio pollution is an issue that has not been addressed by regulators for a long time. The ambient radio noise level continues to rise as we use more electrical and electronic devices. New wireless products add energy to the overall radio environment. And, while most non-radio electrical products are not designed to radiate RF energy, they are also not designed to *avoid* radiation. The average citizen may not be aware of the problem, but we are.

Now the FCC is considering power line communications (PLC),

also called power line telecommunications (PLT) in other parts of the world. I was surprised at the positive tone of the FCC’s commentary in its Notice of Inquiry (NOI) for PLC and related statements. Its glowing account of the potential for PLC makes me think the lobbyists have convinced the FCC that PLC is the next great communications idea.

Unfortunately, power lines make a pretty good antenna and a pretty poor RF transmission line. 2 to 80 MHz signals pumped into a power line will result in a lot of that energy being radiated—for no purpose, just more pollution.

PLC has its place. It can continue in its present limited use, but I fear widespread adoption will create more radio pollution. There are plenty of other communications options that are more environmentally friendly.