

# HIGH FREQUENCY

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## EDITORIAL

# Honesty is the Best Policy, and the Only One That Works

**Gary Breed**  
Editorial Director

*I am writing this near the first anniversary of the September 11th terrorist attacks. There is nothing I can say that adds to what has already been said, shown and felt by us all. Before reading my comments this month, please take a moment to remember the victims of those attacks and all the other violent actions around the world.*



In the 1970s we had MBO (Management by Objective). In the 1980s, the fad was MBWA (Management by Walking Around). Now, we have discovered that the latest management technique has been MBSP (Management by Stock Price). The bending and breaking of laws and regulations by corporate executives, stock traders, accountants, financial analysts and investment bankers is simply astounding. It's no wonder that the nation has been shocked into a state of economic uncertainty.

I admire the majority of Americans who tried hard to ignore the mess in the ivory towers of Wall Street and corporations like Enron. But they kept getting hit with more bad news as executives at one company after another admitted to (or were caught) "cooking the books" to make investors happy, drive up the stock price, and cash in their options. All confidence is gone, and we need to regain our balance.

The collapse of the phony schemes of the dot-coms, energy traders—and yes, over-zealous telecom companies—is good news in the long run. Even with government regulators looking the other way (under administrations from both political parties), these charlatans were found out. A few lucky SOBs will get away, but the epidemic appears to be halted. Once again, we are reminded that crime doesn't pay.

The obvious effect on the high frequency industry is the same as everywhere else—a slowdown in sales, reduced production and the necessary layoffs in the workforce. No surprises here!

Many of you have figured out that I am an incorrigible optimist. (What's the best day of my life? Tomorrow!) And as an optimist, I see a silver lining in almost everything. For example, I did no better job managing my retirement accounts than anyone else (always invested in stocks), but it has only lost value compared to a couple years ago. Over its lifetime, the annual growth averages out to about 8 percent. (Of course, it will get a lot better when the Dow climbs back over 10,000!)

### Substance is What Counts

In the matter of the future for the high frequency industry, I have good reason for optimism. That's because there is real substance in this industry. There is a base of knowledge and talent that can create marvelous solutions to the needs and wants of a society that is mobile in its actions and global in its reach.

Communications and information are today's driving forces, which is exactly what the electronic engineering community we serve is good at! We will be ready to move ahead when public confidence stabilizes, corporate leaders finish cleaning house, and government finds the balance point between regulation and free markets.

Count on it.

### Inside This Issue

Several areas of high frequency technology get a close look in this issue. First on list—EDA tools. Our dependence on computer simulations that accurately represent circuits and systems is huge. That's because we need to be fast and efficient in the development of new products.

"How to Get the Most from Today's Advanced EDA Tools" looks at two sides of the issue—the overall guidelines and approach that an engineer should take, plus a summary of the efforts at EDA vendor companies to make their powerful and complex products easier to use.

Later on, a group of authors from TDK and Modelithics gives us an in-depth look at measurement-based models, explaining why we need them and how they improve simulation accuracy over more common equivalent circuit models.

Antennas (my favorite subject) get attention in our Technology Report, a review of the issues that affect their design and use in WLAN systems, WLL, U-NII and other point-to-multipoint distribution systems.

Wide band gap semiconductor technology is the subject of an article by Ray Pengelly. He provides a status report and a look to the future of transistor technology and amplifier design to meet the needs for highly linear and power-efficient solutions.

Also in this issue, we put the spotlight on new products from oscillator and switch manufactur-

ers, and as usual, we add many more announcements of a wide range of new products.

Among the next issue's offerings is a report on SiGe technology and applications in RF/microwave/high-speed IC applications, along with a review of twisted-pair telephone transmission lines, with an emphasis on high frequency performance for applications like xDSL.

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