

Editorial Director

Gary Breed  
gary@highfrequencyelectronics.com  
Tel: 608-437-9800  
Fax: 608-437-9801

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

Associate Editor

Katie Landmark  
katie@highfrequencyelectronics.com  
Tel: 608-437-9800  
Fax: 608-437-9801

Business Office

High Frequency Electronics  
7 Colby Court, Suite 7-436  
Bedford, NH 03110

Editorial and Production Office

High Frequency Electronics  
104 S. Grove Street  
Mount Horeb, WI 53572

Also Published Online at

www.highfrequencyelectronics.com

Subscriptions

Sue Ackerman  
Tel: 651-292-0629  
Fax: 651-292-1517  
circulation@highfrequencyelectronics.com



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## Early Indicators of High Frequency Industry Strength

**Gary Breed**  
Editorial Director



Over the past few weeks, I have seen a few significant rays of hope for the eventual return to strength in our part of the electronics industry. Like everyone else, I believe the road will be long and hard, but at least there is some evidence that we are starting down that road.

The first bit of evidence is that some business segments managed to stay strong during the last few months of 2008, even after the disastrous events in the financial markets that arose through the summer of 2008 and finally crashed in September. A new report from EJM Wireless Research, summarizing 2008's 4th quarter wireless base station contracts, shows that supplier contracts were up 62% over the 3rd quarter. Although the majority of activity was in Asia-Pacific markets, Western Europe was a strong #2. Nokia Siemens Networks was the leading vendor in this analysis, but all major base station OEMs received news contract during this period.

Since this activity follows the worst of the economic shock wave, it confirms my impression that high frequency business and technology are not suffering from any weakness within the industry (as was the case in 2000-2002), and are only being affected by the overall slowdown in the world economy. I suppose we can take some comfort that our industry, while suffering along with everyone else, is in a better position to rebound as things gradually get better.

Another bit of news is that several component companies have told me of increased engineering activity—more requests for samples, more application support questions, and inquiries about future product improvements. Of course, some of this can be attributed to engineers having more time on their hands during a time of slower business. Here at *High Frequency Electronics*, we have seen a parallel trend—an increase in the number of proposals for technical articles.

However, there also appear to be well-planned efforts to maintain a competitive edge during this crisis, to ensure that slow sales do not result in slow development of technology. I fully expect to see some parts of our business skip an entire generation of development and “leapfrog” to the next level of performance.

On the down side, I expect to see some companies become victims as the economic malaise continues. Companies with insufficient capitalization and those with too much of their business in the most volatile market segments are the most likely to suffer. A bigger tragedy may be failure of some promising small companies that won't get a chance to develop their unique technology contributions. I hope that the investment community and strong companies have the foresight to support (or acquire) these companies, allowing important new ideas to continue their development.

### **Survival Strategies**

Getting through tough times is a difficult assignment, but there are always survivors! Obvious strengths are cash in the bank, or a

product line that targets applications with the least impact, primarily high priority government/military contracts.

At the next level are companies with little or no debt, serving markets that are slower, but still significant. There are many companies in the high frequency industry that fit this description. By now, frugal operating practices are the norm, and the biggest challenge is avoiding cost cutting that affects future viability.

I worry the most about companies that have borrowed heavily to support their growth. Now they must depend on a weak credit market for their survival. I also worry about publicly-traded companies that have not become established in their long-term strength. Stock prices are low and financial support may be weak. These compa-

nies must endure at least several more months of unknown status, as financial markets attempt to find a way to reach stability and allow stock prices to recover.

### **In This Issue**

OK, enough analysis of the world economic situation! We are still delivering a monthly magazine with a wide range of subject matter and technical depth.

This issue has technical articles ranging from an introductory tutorial on patch antennas to specific design techniques for crystal band-stop filters, along with notes on field measurements with a new portable instrument. There are also stories from the engineering lab, including the application featured on our cover. And as usual, we hope you find our industry news and new product coverage useful!