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2009: Learn Our Lessons and Move on to Next Year

Gary Breed
Editorial Director



The above title says it all—This year, I am not going to write the traditional end-of-the year review in my editorial column! I'll skip the bad news—it's been extensively reported elsewhere—and point out a few positive things I observed during 2009.

Yes, the worst economic news came in late 2008 and early 2009, and companies saw cutbacks in inventory and personnel. But, many companies continued engineering development, allowing the technology to advance even if the market for it was weak. This kind of forward thinking is rare, and those companies that cut back in their development efforts will find recovery very difficult.

Some engineers took advantage of their companies' extended deadlines and cancelled projects—and took time to write articles! We have had no reduction at all in the number and quality of technical articles offered for our review. Some of those articles were written for personal satisfaction (and an improved resume), while others were sponsored by employers who value the knowledge of their technical staff. They also realize that technical contributions create company visibility and show off the competence of a quality engineering staff.

I'd like to thank them for their contributions and for their confidence that *High Frequency Electronics* is the right place to have their work published. Our readers certainly appreciate that our authors are willing to share their expertise in a good technical magazine article.

I have heard a few stories suggesting that the first part of a recovery is underway, but only the first part—orders are being placed to restock inventory that had been allowed to drop below normal levels, for short-term cost reduction. This is not really growth or new business, but it is heartening to see businesses resume a portion of their routine operation.

For 2010: Caution is the Theme

After being hit hard by the recession, and cynical about the fraud, corruption, greed and stupidity that caused it, it's no surprise that everyone will be careful about expenditures, personnel, ... basically, every business decision. We are all doing the same in our personal lives, of course.

But be careful; caution should not get in the way of smart business management. For a return to prosperity in 2010, some degree of confidence must be present as well. Maybe the place to start is simply confidence in your abilities (personally or as a company). Good ideas, well executed, will always have a place in the market. The goal is making sure that such a place in the market is big enough to support a company is the goal.

Technologies to Watch

There are a few areas of high frequency technology that I find particularly interesting. One is wireless sensors using energy harvesting for power. This is one of the few technologies that had a good year, at least on the development side. It looks poised to grow as much as the economy will allow.

Of course, one reason for high interest in these sensors is that they are often part of an energy management system such as building lighting and HVAC. With world wide attention to energy consumption, especially the cost of energy production, efficient management techniques are a high priority.

Next, the demand for high bandwidth wireless has exceeded my own expectations. Some of this is a result of successful marketing of services and devices, but it seems clear that plenty of consumers want “apps” that require a high-speed connection.

Then we add the government’s rural broadband initiatives. Incentives to bring high-speed Internet access to the most remote citizens will change on the way they are informed and entertained and how we communicate. Past

programs for rural electricity and telephone service certainly brought about profound change! Delivering 21st century communication technology should do the same.

One more technology that fascinates me is at the microscopic level: integrated circuits. The creative solutions for digital and wireless devices continue to move ahead. Yesterday, it was miniaturized filters and one-chip radios. Tomorrow, it will be ultra high data rate home networking devices, inexpensive picocells to extend wireless network capacity, and high-speed optical data exchange networks to keep those chips talking to one another.

We really need an economic recovery to support the engineers who will create the next generation of advanced technology!