

## Hot consumer technologies in 2012

Jerry Kolbe, Director of Technology and Marketing Communications, Murata Electronics North America, [www.murata-northamerica.com](http://www.murata-northamerica.com)



This is the time of the year when I am always asked to give my prediction on the next killer consumer product for the new year. Since I am not Zoltar or don't own a crystal ball, this is a difficult question to answer as it depends on whether we are talking about a product consumers will embrace or what the industry will launch as the latest and greatest invention with yet to be realized demand. So, I am not going to try to predict what new consumer product will be consumed on a large scale by the consumer. Rather, I will give a prediction from the standpoint of a component company, who is one or two steps removed from the consumer.

My oldest daughter always complains about the battery in her smart phone dying. This is probably from overuse (much to my chagrin) but also is an issue endemic to many smart phones (and portable devices) because of their increasing abundance of functions. So, how can this issue be addressed (aside from limiting a teenagers usage)? Managing the power consumption through semiconductor chipset, other components and/or software is an active area of development and design innovation right now. But I think this could be a means without an end. I can envision power consumption reduction, followed by more features being added causing overall power consumption issues, and on and on. A cool way around this is being touted as wireless charging. It is a way to recharge smart phones and other portable devices more frequently. While wireless charging has been around for a few years, 2012 could be the year it finally reaches wide spread use.



So, what is wireless charging? It is a way to eliminate the cabling and wires typically associated with charging a portable device. Why is wireless desirable? Well, for one, you will not have to remember your charging cable when you are heading out to go somewhere. Or remember to plug in your phone at night – just put in on your night stand (which would have a charging base either sitting on it or built-in). Have you ever been in an airport and not been able to find an open receptacle (someone is always sitting nearby hogging all receptacles charging every conceivable device known to man or woman) when you desperately need to charge your phone or tablet PC? Enough said...

Wireless charging is accomplished primarily using one of two methods, inductive or capacitive coupling. Using capacitive coupling instead of conductive or inductive charging, coils are replaced with transmitters and receivers. Unlike inductive charging, the capacitive charging system is not subject to coils alignment issues.

Yes, we have a horse in the race, so to speak. Hitachi Maxell recently introduced their “Air Voltage” wireless charger for the iPad 2. It uses Murata’s LXWS series capacitive coupling\* wireless power transmit/receive modules that enable 10W wireless recharging of tablet PCs and other mobile devices.

Of course, the Hitachi Maxell solution is not the only wireless charging products on the market. Go to a big box retailer and you will undoubtedly see solutions for sale, most of which are using inductive charging.

So, we are really hoping that 2012 is the year that smart phones and tablet PCs can be recharged without cabling and wires!

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