

# The Market Drivers in Power Are Changing

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Every component that is supplied into multiple industries or applications has certain applications that really drive the development of that component, both technically and commercially.

In power management, the two single largest categories of devices are voltage regulation and referencing, and power transistors.

If we take a look at the top 5 applications that drive demand for voltage regulation (mobile handsets, home audio, medical electronics, desktop PCs, and laptop PCs), we see that from 2002 to 2009 there are some slight shifts up and down, but these 5 remain the top 5 market drivers even while the market size more than triples from \$3.7Bn to \$11.5Bn.

However, if we look at the power transistor market, we see some significant changes in the applications that drive that portion of the market.

By 2009, the market driver categories for power transistors become personal electronics, consumer appliances, home audio, desktop PCs, and mobile handsets.

The big news here, of course, is the emergence of personal electronics and consumer appliances as market drivers. During the period of 2002 to 2009, the size of the “personal electronics” sector – which includes items such as MP3 players, portable stereos, cameras, camcorders, and essentially anything you carry around easily that isn’t a cell



Unlike the personal electronics category which impacts the entire semiconductor industry in a more balanced way (including memory, logic, processors, analog and power), the consumer appliances category primarily impacts the power management device category. These are predominantly offline applications, heavy in power conversion content.

Additionally, the end-equipment forecasts done by iSuppli to make the appliance power device projections above also don’t count upon any “discontinuity” market events, such as legislation that suddenly requires PFC or certain efficiency performance. These would represent even greater upside potential for the category.

Notably knocked out of the top-5 market drivers is manufacturing automation – a very traditional driver for the power transistor market. These projections are consistent with the broadening awareness that consumer demand is surpassing that of industry. This

has large implications for suppliers; since industrial demand actually continues to grow, that means that consumer demand is growing even faster so the excitement and growth opportunity for competitive advantage are in consumer applications, so this is where the supply focuses the attention. competitive advantage are in consumer applications, so this is where the supply base focuses the bulk of its attention.

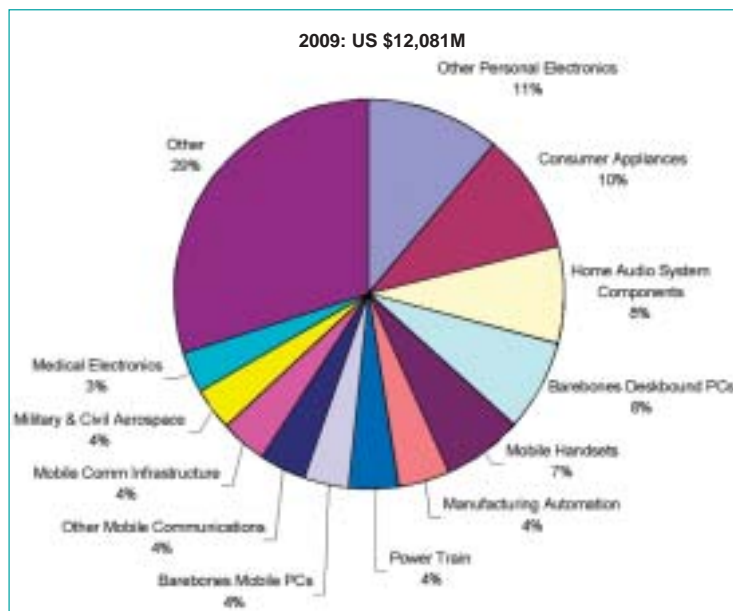


Figure 1. Market-Driving Applications for Power Transistors in 2009

phone—quadruples, jumping from #3 to #1 in market impact. (See Figure 1.) This gain in market impact mirrors the increasing impact of personal electronics in the semiconductor market in general during this period.

During the same time horizon, the consumer appliances category jumps from #7 to #2 market impact, as electronic controls make greater inroads into traditionally electromechanical applications such as washing machines, air conditioners, refrigerators, and the like.