

Telecommunications Powering: Forecasts and Trends (from July 2005 report)

The telecommunications infrastructure industry is still in flux. After enduring several years of declining sales, equipment vendors have sought new markets and new business models to maintain and increase sales of power systems. Early strategies included focusing on replacement sales (for batteries, in particular) instead of new installations. Wireless applications provided the best opportunities for new equipment sales. More recently, companies are providing differentiated “bundled services,” which are still expected to drive the telecom sector in 2005.

The Worldwide Communications Power System market has also experienced declines over the past few years, although there are signs that this market is picking up. The Worldwide dollar market for both wireline and wireless dc power systems is expected to grow at a fairly flat rate between 2005 and 2010, staying around \$4.3 billion.

According to the Telecommunications Industry Association (TIA), the U.S. network equipment market started to emerge from its slump in 2004, reaching \$15.8 billion – a 4.7% increase over 2003. This reversal was due to the market’s evolution toward integrated full-service providers offering bundled services at flat rates. Fiber was the principal driver of growth in this market, since the wireless market is beginning to mature. TIA projects that network equipment revenue will increase 9% in 2005 to reach \$17.3 billion. With a 8.4% compound annual growth rate (CAGR), this market will grow to \$22 billion by 2008.

Skyline Marketing gives a similar estimate. They project that capital expenditure spending by Regional Bell Operating Companies (RBOCs) will be about \$16 billion in 2005, with 4% going to data equipment; 4% to broadband/DSL; 10% to VoIP/C2P (circuit-to-packet); 24% to FTTx/P2P (point-to-point); and 58% for legacy plant. Darnell Group forecasts that the dc power system portion of this market will be approximately \$1,532 in 2005, growing to \$1,581 million in 2010, a CAGR of 0.6%.

Recovery in the telecom market is expected to be led by construction in the access segment of the network, which includes fiber. Also, growth in broadband spending is expected to drive equipment sales globally. The introduction of IP networks and the continuing rollouts of 3G and Wi-Fi services will also boost the global equipment market. But telecommunications companies are expected to focus on revenues and bundled services after several years of deferred capital investments and concentration on cost reduction. This trend will affect all segments of the communications industry worldwide.

Unisys Global Communications, an industry consultant, sees companies focusing on the following trends: launching revenue-generating multimedia and converged services; building customer relationships; revamping business models to personalize services for customers; and using partner collaborations and consolidation. Strategic marketing suggestions include providing “turnkey packages,” such as equipment and services in one

stop; and to scope aftermarket opportunities, such as equipment add-ons and site management/maintenance. Engineering & Installation Services related to the power system include installing, assembling and testing the system; and analyzing power needs and network protection. These services can be up to 25% of the total power system cost. By 2010, this percentage could increase to about 32% of the power system cost.

Applications are a major differentiator for determining where growth is taking place in the communications power systems market. This report does not include customer premises equipment (CPE), so all applications fall under either Wireline and Wireless, and forecasts are included for these application areas. Since CATV has its own unique power requirements, CATV is another separate application. Many emerging broadband technologies are technically CPE solutions, yet some of them are expected to challenge traditional telecom technologies that operate up to the customer premises. For example, how will challengers like broadband-over-powerlines (BPL) fare? A greater threat could be new battery chemistries that provide a better total cost of ownership than existing flooded or VRLA battery solutions.

Mohan Mankikar
Micro-Tech Consultants
1686 Jessica Place
Santa Rosa, CA 95403 USA
Tel: (707) 575-4820
Fax: (707)-579-3706
Email: MicroMohan@AOL.com
Web Site: www.Micro-TechCo.com

Top-10 Power Supply Companies
OEM Power Supplies
2005 WW Sales: US Dollars in Millions

No	PS Companies	WW 2005 Sales
1	Delta Electronics	~\$1729
2	Emerson Network Power/Astec Power	~\$700
3	Lite-On Technology	~\$690
4	TDK/Lambda	~\$675
5	Phihong	~\$401
6	FSP Group	~\$400
7	Acbel Polytech Inc.	~\$378
8	Artesyn Technologies	~\$346
9	Hipro	~\$330
10	Murata	~\$320

Embedded Switching Power Supplies:

AC-DC:

The following data reflects total 2006 global consumption (merchant and captive). It excludes: external power supplies ("lump & cord," "wall warts," benchtop power supplies) and linear power supplies.

Size: \$11.4B

5 Year CAGR: 5.7%

Key Trends:

- Rapid trend towards merchant sales
- Substantial trend towards standard and modified/standard products away from custom designs
- Rapid growth of unit sales volume in Asia/Pacific
- Slowing trend towards power factor correction, as the large majority of products are already equipped.

Over the next five years growth of AC-DC switching power supplies will be driven by the continuing rise of consumer devices. Also, increasing demand for functionality in products is leading to higher power requirements, which often results in demand for more expensive power supplies. Niche markets such as lighting, industrial, and medical are fueling further growth on a smaller scale than the major markets for consumer, computing, and telecom. The rise of consumer products as the most important vertical market pushes increasing unit sales, but at the same time pulls down the average selling price. This occurs in conjunction with a period of consolidation in the industry as three of the top five power supply manufacturers have been involved with acquisitions in the past year.

DC-DC:

The following data reflects total 2006 global consumption (merchant and captive). It includes "bricks," VRMs, and other board-mounted converters.

Size: \$6.9B

5 Year CAGR: 9.2%

Key Trends:

- Telecom/Datacom represents the largest consuming industry, followed by Computers/Office Automation.
- Rapid trend away from custom designed products towards standard and modified standard products.
- Continuing trend towards isolated products.
- Rapid trend towards use of distributed power architecture with POLs across more applications.

Over the next five years, growth in the DC-DC converter market will be driven in particular by the proliferation of lower voltages at higher current levels fueling use of distributed power architectures. The DC-DC converter market is strongly driven by the telecom/datacom and computer/office automation applications and will focus increasingly on supporting new standards such as AdvancedTCA that take a more modular approach to power. The modular approach mandates standard units and paralleling standard units for increased capacity over custom designed DC-DC converters. Standardized products, however will experience greater price erosion than customized designs.

The above data provided by:

Eric Heikkila
VDC - Venture Development Corporation
www.vdc-corp.com
erich@vdc-corp.com