

GLOBAL

SWITCHING POWER SUPPLY INDUSTRY

(Embedded Power Supplies)

(Detail-Version)

Strategies for A Changing Market

(09/18)

Micro-Tech Consultants

**Global Switching Power Supply Industry 2018
Embedded Power Supplies (Detail-Version)
Strategies for A Changing Market**

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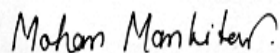
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FOREWORD

In the last four years (2015-2018), the global power supply industry experienced significant ups and downs beyond the normal peaks and valleys of a business cycle creating significant uncertainty. This uncertainty was the result of significant globalization (an event in one region creating a significant impact on the other region), emergence of: dynamic markets (mobile devices like mobile phones and tablets replacing laptop and desktop computers), software/service businesses (Google, Facebook, Twitter etc.) and new markets like LEDs and battery chargers for electric vehicles. In addition, new paradigm in adapter markets has emerged, that they can be sold directly to end customers at higher prices. With increasing popularity of mobile devices, this additional profitable market is increasing. In summary, power supply market dynamics is changing, with relatively flat established markets, high growth LED s and battery charger for EVs and emerging end user market. All these four markets offer unique opportunities for power supply companies.

This Global Switching Power Supply Industry 2018 Report provides a comprehensive analysis of the changing dynamics within the power supply industry. It provides a quantitative measure and qualitative analysis. The analysis is provided at the "Global Level" because regional-level business transactions are indeterminate. The power supply business has become global, especially for multinational power supply manufacturers (PSMs) and their OEM customers. For example, PSMs tend to design power supplies in one location (Americas), manufacture them in another (APAC: China) and then market/sales them in a third region (EMEA). For large companies, globalization has blurred the market lines between different regions. However, the power supply industry also consists of many small companies that manufacture and sell their products in their "native regions." For them, the regional markets are more important than the global markets. The report provides information on both types of markets for both types of companies. In 2017, transportation sector is analyzed more comprehensively due to emergence of battery charger market. To provide consistency to this segment the commercial aviation category has been moved from the military/aerospace to the transportation segment.

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Power supplies are a unique commodity with multiple user/marketing/sales parameters. So power supply data can be organized in many different combinations of different parameters creating a massive database. Here are examples of power supplies in various possible data organizations:

- **Products: AC-DC & DC-DC**
- **Regions: Americas, EMEA, APAC & Rest of World**
- **Markets: LED, CON, COE, NTE, IND, MED, TRN & MIL**
- **Applications: CON: Cell Phones....; COE: Servers...; NTE: Routers... etc.**
- **Output Power: 0-50W... or 0-150W... depending upon the product**
- **Product Types; Standard, modified-standard & custom**
- **Output Voltages: 1.2VDC; 2.5VDC; 3.3VDC; 5.0VDC; 12VDC; 24VDC; 28VDC; 48VDC...**
- **Input Voltages: AC-DC: Universal input; DC-DC: 48VDC; 28VDC; 24VDC; 12VDC; 5VDC...**
- **Output Current: DC-DC: 5A; 10A; 20A; 30A; 40A; 50A...**
- **Product Design/Packaging: DC-DC: Isolated; non-isolated; VRMs...**
- **Packaging: AC-DC: 3x5; 5x7; 1U; 2U...**
- **Packaging: DC-DC: HB; QB; 1/8th B; SIP...**

With all these combinations, it is impossible to provide market size and trends for all possible applications and all possible product categories. Micro-Tech Consultants (MTC) has provided data and analysis for the most commonly used and most significant categories.

- **In-depth information about the Global Switching Power Supply Industry along with market statistics in major geographic regions:**
 - **Americas (AMER)**
 - **Europe, Middle East & Africa (EMEA)**
 - **Asia Pacific (APAC)**

- **Rest of World (ROW category is created to reconcile market numbers, not as a market segment)**
- **An analysis of various markets: Information Technology (IT); Industrial/Instrumentation and Military/Aerospace equipment in different geographic regions**
- **An analysis of emerging trends related to new architectures: DPA—Distributed Power Architecture: using isolated DC-DC converters and IBA—Intermediate Bus Architecture—using non-isolated converters**
- **Emerging Trends In: Global changes, power architectures and related products, product models, and business models**

In addition to the market and product analysis, this report provides an in-depth analysis of the power supply business and strategic options.

This report is the culmination of more than 34 years of market research in the power supply industry and is organized in the following chapters:

Chapter 1.0: Executive Summary - summarizes the entire report in a concise manner. It provides an overview with specific important industry highlights, trends and strategies.

Chapter 2.0: Global Power Supply Industry Analysis - provides an analysis of the Global Power Supply Industry, which includes OEM Power Supplies, Telecom Power Systems (Energy Systems) and Uninterruptible Power Supplies (UPSs).

Chapter 3.0: Global OEM Power Supply Market Analysis - presents detailed information about global markets and power products, what the important and emerging markets are, and what products will be suitable for these markets—their trends and characteristics. It also includes specific product applications.

Chapter 4.0: Americas (AMER): OEM Power Supply Market Analysis - provides an analysis of the Americas Switching Power Supply Industry, which includes AC-DC Switchers and DC-DC Converters.

Chapter 5.0: EMEA: Europe, Middle East & Africa: OEM Power Supply Market Analysis - provides an analysis of the EMEA Switching Power Supply Industry, which includes AC-DC Switchers and DC-DC Converters.

Chapter 6.0: APAC: Asia/Pacific: OEM Power Supply Market Analysis - provides an analysis of the APAC Switching Power Supply Industry, which includes AC-DC Switchers and DC-DC Converters.

Chapter 7.0: Rest of World (ROW): OEM Power Supply Market Analysis - provides an analysis of the Rest of World (ROW) Switching Power Supply Industry, which includes AC-DC Switchers and DC-DC Converters. The sales numbers associated with this region are the result of a sampling error. They are not to be used for strategic planning. MTC plans to eliminate this category in the future.

Chapter 8.0: Product Analysis - provides an in-depth analysis of marketable product parameters and evolving standards in the industry. This chapter also includes a subchapter on emerging trends in DPA and its impact on isolated and non-isolated converters.

Chapter 9.0: Competitive Analysis - analyzes major power supply companies.

Chapter 10.0: Appendix: Definitions and Explanations - gives details about terms and conditions used to prepare this report. This chapter also includes an explanation of geographic regions.

Organization and Methodology - gives details about how this report is organized and the methodology used to create the data.

Chapter 11.0: Micro-Tech Consultants (MTC) - provides background information on Micro-Tech Consultants.