

The Mainstream PC Gaming Market

A Report on the Gaming Industry
For PC Platforms

by

Ted Pollak

And

Jon Peddie

Jon Peddie Research
4 Saint Gabrielle Court
Tiburon, CA 94920
415.435.9368



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Executive Summary

This report covers the hardware TAM for Enthusiast Gaming PCs, AIBs, and peripherals for major international regions and specific countries within these regions.

The report is a combination of top down and bottom up analysis. The Top-down portion of the report analyzes hardware based on GPU/AIB shipments and subsequent PC shipments from 2008 to 2012. It is also based on various macro financial analysis and growth rates.

The Bottom-up portion is based on the strength of PC gaming in individual countries worldwide and also the type of gaming popular in various cultures.

The Appendix offers a detailed step by step methodology and an architecture discussion. There is an extensive index.

Countries examined

United States
South Korea
Japan
China
Germany
United Kingdom
France
Italy
Canada
Australia
Switzerland
Russia
Spain

India
Netherlands
Brazil
Mexico
Hong Kong
Poland
Belgium
South Africa
Austria
Sweden
Denmark
Greece
Turkey

Argentina
Indonesia
Czech Republic
Thailand
Algeria
Malaysia
Romania
Hungary
Chile
Portugal
Colombia

Methodology

This is in general a supply-side report. Data for it comes from the suppliers of PC gaming systems and software as well as the component suppliers to those system sellers, as well as retail channels. We constantly survey the semiconductor, software, and ODM suppliers in the course of our business. We have also relied on company reports and presentations for some of the information.

Primary research for this report

- Interviews, phone calls, e-mails, and faxes with managers, engineers, and marketers of PC system integration companies.
- Interviews with executives and employees of component suppliers to system integrators.
- Interviews with employees of e-tail and retail channels.
- Interviews of software vendors, and technology providers about visual entertainment products and services.
- Interviews with investors and financial analysts following the semiconductor markets.
- Telephone and e-mail interviews with related and associative companies that are working to develop accessories and peripherals for the PC gaming industry.
- Surveys of PC gamers and PC purchasers.

- **Secondary research for this report**
- An analysis of a collection of publicly available data, annual reports and other financial filings.
- An analysis publicly available market information from agencies, consortiums, and trade organizations.
- Background research of the technology issues surrounding PC gaming products, as well as consumer media and content and multimedia broadband services and infrastructure.

The market for PC Gaming Systems and After-Market AIB's is complex and requires a fairly detailed methodology to analyze. Below we have bulleted key factors and influences that we incorporate into this analysis. An in-depth, step by step methodology can be found in the Appendix.

- PC Gaming Software, Services, and Peripheral Revenue
- Gaming Cultures (Popularity of certain Games and Genres in various Countries)
- Processing Intensity Levels (Stress of specific Games and Genres on AIBs and Systems)
- Wealth Demographics
- Economic Growth
- Population Growth
- PC and AIB Growth
- PC Gaming in relation to Console Gaming
- Home and Personal Use in relation to Business and Office Use
- Gaming Motivation in relation to Total PC Purchase Motivation

Definitions

This report is one of three that comprises the total worldwide market potential PC gaming systems which consists of new branded PCs, White box PCs, after-market add-in boards (AIBs), do it yourself (DIY) systems, and gaming influenced accessories and peripherals.

The series of reports consists of the Enthusiast, Performance, and Mainstream segments. The definitions for those segments are as follows.

Enthusiast segment

Compared to the overall PC market, the Enthusiast segment accounts for only a relatively small number of unit shipments. However, those systems are among the most expensive and deliver very healthy margins. Enthusiast-class AIBs deliver the highest possible performance and offer the enthusiast or *hobbyist* the ability to tweak the AIB (e.g. with special cooling and clock manipulation) to exceed the published specifications.

Enthusiasts pay very little attention to price tags. If the PC or AIB promises the best gaming experience they will be bought, and MSRPs in the category aren't declining. In fact, recent top-end PCs and AIBs on the market have been gaining in price. In our analysis we use Enthusiast GPUs as the cornerstone but also account for Enthusiast systems as a pricing segment with an average of \$2450 including a monitor factor adjusted for gaming motivation and purchasing frequency.

Performance segment

The Performance computer segment isn't so clear-cut. Some like JPR treat it separately from the higher end Enthusiast category, and others include the Enthusiast category within the Performance segment.

There is overlap between the two, but one of the major points of distinction is that performance machines are sold into the broader markets, advertised as machines for entertainment or high-end professional use. In addition, they are equipped with newer, high-performance graphics chips, but typically not the most powerful.

Often, the performance sector AIBs are the previous generation's Enthusiast AIB, but they are also built up on lower-cost GPU derivatives of the current top-end GPU part. In our analysis we use Performance GPUs as the cornerstone but also account for Performance systems as a pricing segment with an average of \$1464 including a monitor factor adjusted for gaming motivation and purchasing frequency.

Mainstream segment

The mainstream category is the largest unit volume and the lowest performance segment. The AIBs used in these systems can be either specially designed (to reduce cost), older generation models, or special versions with GPUs that are higher end but have not passed all the tests to be in the higher classifications (this is one way GPU suppliers manage fab yields and inventory

costs.) Mainstream systems and AIBs offer solid capabilities for Internet, gaming, and office productivity applications. We include Value PC's and GPU's in the Mainstream segment. Regardless of their budget people of all economic levels love video games and they serve to influence PC purchases even at the lowest level.

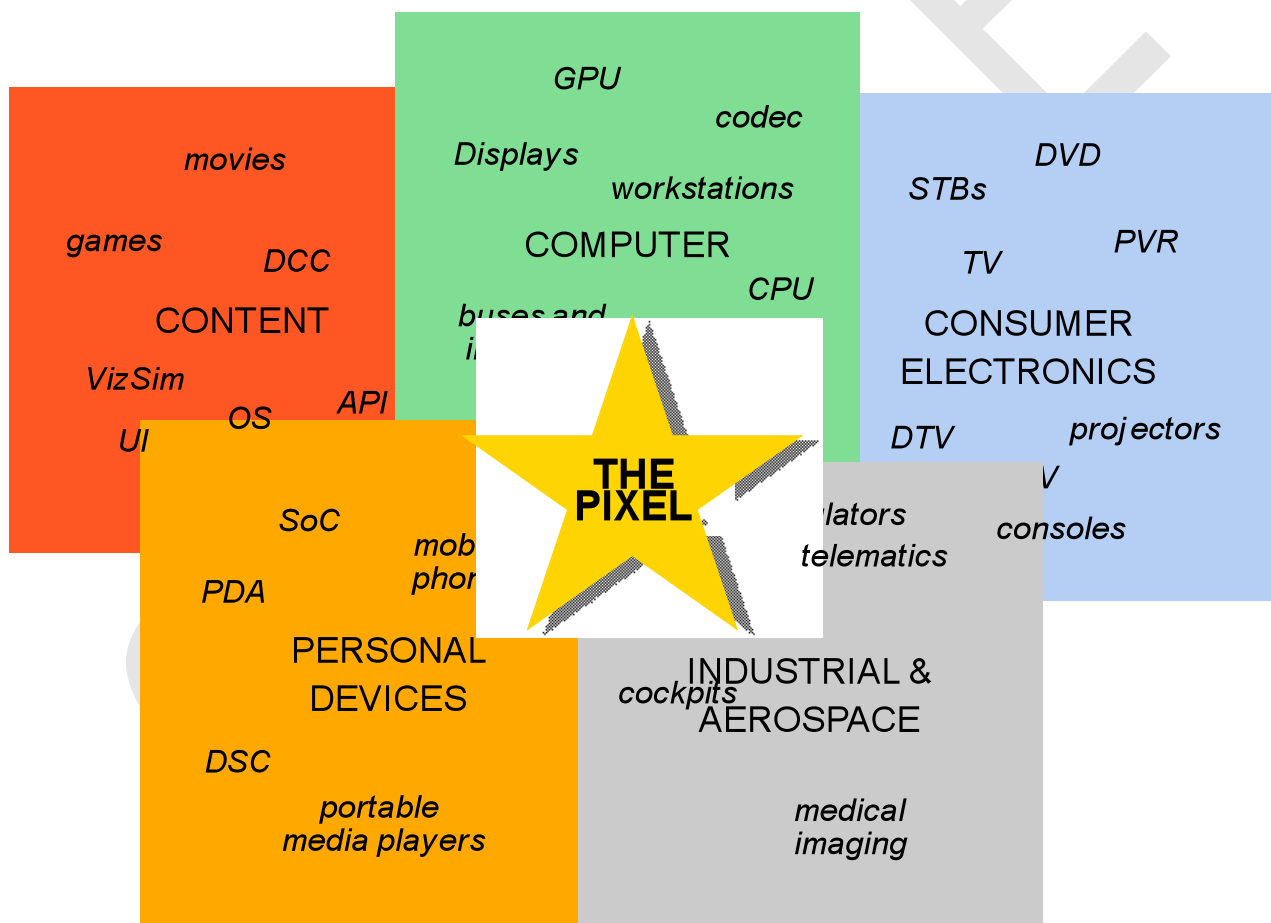
In our analysis we use Mainstream and Value GPUs as the cornerstone but also account for Mainstream systems as a pricing segment with an average of \$714 including a monitor factor adjusted for gaming motivation and purchasing frequency.

SAMPLE

About Jon Peddie Research

- Founded in 2001 – but it's our 24th year
- Focus and emphasis on Digital Technology, Multi Media, and Graphics
- Consulting and market research - Advisor to industry leaders and financiers
- Bi-weekly, Quarterly, and various Digital Technology Market Reports and Studies

The Business of Multimedia and Graphics



We Chase the Pixel

Introduction

The Mainstream PC gamer is defined as a game player who buys a computer with intent of using it to play games, and has a low budget level. By definition such a computer is capable of running an office productivity suite and performing on the internet. Rather, the questions the Mainstream gamer is likely to ask are:

- Will this machine offer game performance at a level similar to a console?
- Does the machine have the right ports for my peripherals?
- Is it upgradable?

Quite often, there's an interest in other activities such as, will it handle basic digital media editing.

Knowing the market for Mainstream gaming systems is mission critical data for chip companies, system integrators, video game software companies, and peripheral vendors and this report will help guide their global production, distribution, and marketing.

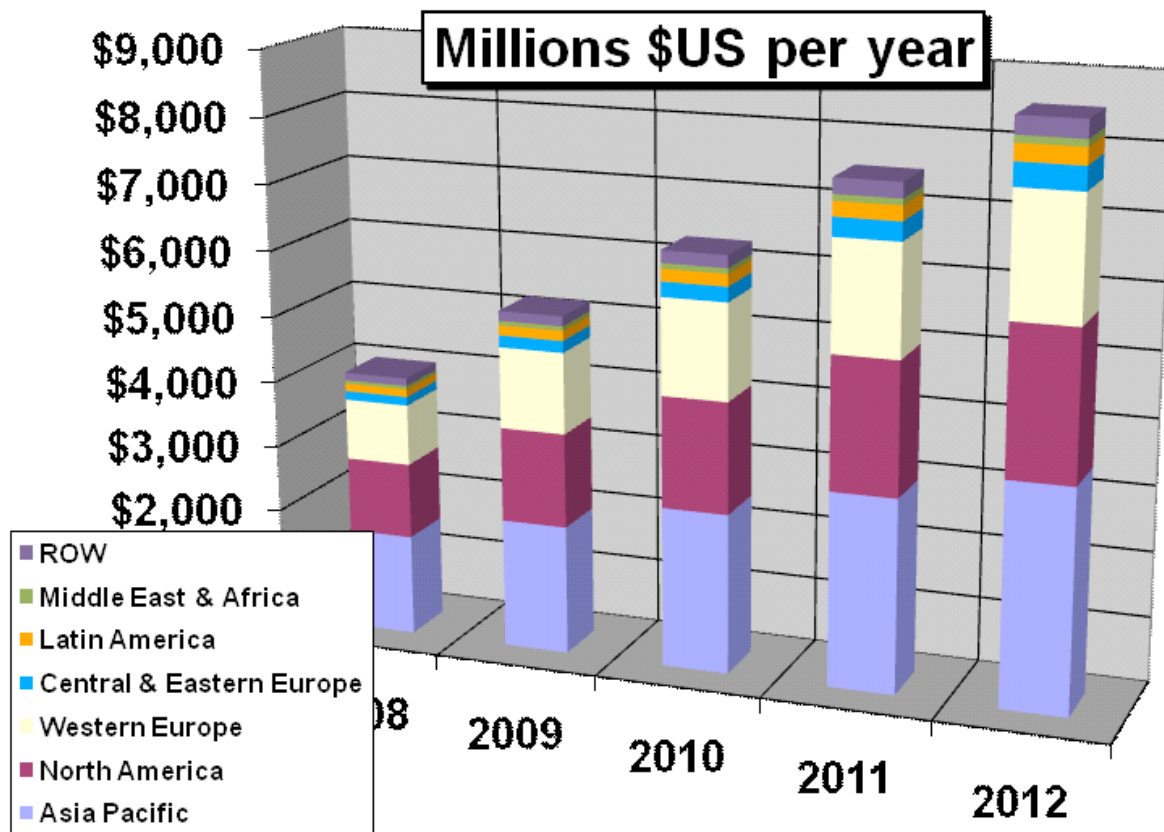


Figure 1: The Worldwide Mainstream PC Gaming Hardware Market (Source: Jon Peddie Research)