

Rolling Your Own: How to design and build your own computer

Defining Function: What does it need to do?

Picking the Memory, Motherboard and processor
Buses, memory controllers and slots
Video Cards: planned obsolescence
Firewire and USB considerations

Selecting the Case and Power Supply
Power Supply considerations
Fans and Airflow

Hard Drives, Optical Drives and Floppies
PATA Vs SATA and SATA I
To **RAID** or not to **RAID**
Floppies and PS/2 Devices
Tech note on external floppies

Integrating the System
Processor, fan and memory
Installation tips:
Neatness is next to godliness

Raising the Dead: What to do if it doesn't start.

Sources:

AMD Technical Documentation

http://www.amd.com/us-en/Processors/TechnicalResources/0,,30_182_869_739%5E7203,00.html

Builder's Guide with AMD Processors

http://www.amd.com/us-en/assets/content_type/white_papers_and_tech_docs/31684.pdf

The Truth About PC Power Consumption Observed Over Time

http://www.tomshardware.com/2007/10/19/the_truth_about_pc_power_consumption/

Intel Power Consumption Then and Now

From Pentium 4 to Core 2: Power Consumption Analyzed

http://www.tomshardware.com/2007/10/19/the_truth_about_pc_power_consumption/

Memory Selection

<http://www.kingston.com/>

MSI computer: Graphics and Motherboards:

http://www.msicomputer.com/product/p_main.asp

Requirements for Intel DQ35JO Motherboard

<http://download.intel.com/products/motherboard/DQ35JO/tps.pdf>

AMD Discusses New "Spider" Platform based on AMD Phenom quad-core processors, ATI Radeon HD3800 Series GPUs and the AMD 7-Series chipset.

http://www.amd.com/us-en/0,,3715_15341,00.html

Designing and building a Crossfire Graphics System

<http://ati.amd.com/technology/crossfire/>

nVidia SLI graphics information (including selection and building tutorials)

http://www.slizone.com/page/slizone_learn.html

Choosing The Right Power Supply (Dec, 2002) Dated information but well worth reading

http://www.firingsquad.com/guides/power_supply/

Building the Impossible PC

http://www.firingsquad.com/hardware/htpc_build_1106/default.asp

Troubleshooting USB problems with a Microsoft Operating System

<http://support.microsoft.com/default.aspx?scid=kb:en-us:310575>

Great Discussion on PCI bus.

<http://computer.howstuffworks.com/pci.htm>