ATI Comments on the Draft 3 Computer Specification
7/28/06

Desktop Computer

Category A: Not category B or category C

Category B: To qualify under category B, desktop computers MUST have:
Multi-core processor or greater than 1 discrete processor
Minimum of 1 GB of system memory

Recommendations:

1) Since this category is intended as an advanced home user/entry level business computer, we believe that "more than 1 discrete processor" condition should include a GPU into the definition of a processor. This trend is inline with both the ability and increasing application of the GPU as a general purpose processor to do physics, image processing and operating system tasks. We strongly believe that the software ecosystem is beginning to take advantage of the tremendous computational power of the GPU. A good mainstream example of this is the lower CPU utilization in Microsoft Windows Vista during window manipulation tasks.

Category C: To qualify under category C, desktop computers MUST have:
Multi-core processor or greater than 1 discrete processor
A GPU with greater than 128 MB of dedicated, non-shared memory

And at least two of the below:

Minimum of 2 GB of system memory
TV Tuner and/or video capture capability with high definition support
Minimum of 2 hard disk drives

Recommendations:

1) Like for the previous category, we recommend that the definition of a discrete processor to include a GPU.
2) Since this category is intended to cover an advanced business user, we believe that the GPU can be specified to have at least 256 MB of dedicated non-shared memory. This recommendation is inline with the graphics industry trend of more graphics memory for advanced home and business use.
3) We believe that multiple hard drives and TV tuners are not really a good indication of a business computer system. Increasing use of Gigabit Ethernet in the corporate LAN networks has enabled business users to take advantage of network drives to store data for backup. For example, HP Compaq 7000 series of advanced business desktops and Dell Optiplex GX620 (marketed as Ultimate Business Desktop for Today & Tomorrow) do not come with 2 hard drives. Also, TV tuners and video capture capability do not necessarily signify an advanced home user or a business user. We recommend that the qualifying condition be changed to:
   "**One** of the below:
   i. Minimum of 2 GB of system memory
   ii. Graphics memory bandwidth of 1600 Mbps
   iii. Minimum of 2 hard disk drives"
   The above graphics bandwidth guarantees a good graphics performance and is also used by Microsoft for Windows Vista premium logo certification.

Mobile notebook

Recommendations:

We believe that the category A should have 25W for its idle power given the fact that Vista will be an essential platform for 07-09 products, Therefore, increasing the idle power form 20W to 25W will be more realistic to address the impact of the GPU in the notebook products during the life time of the spec. Also, we believe that there is a need to establish category B in the notebook to accommodate the performance and the high end notebook products. A good way to differentiate between a Category B notebook, that serves the enthusiast segment, is the screen size. More than 17" will fall into Category B and we recommend a 40W idle power budget for such notebooks.

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