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By: Bogdan Botezatu, Hardware Editor



The PlayStation 3 Cell processor  
OZ Labs

## [Toshiba's Qosmio G40 Notebook Comes with PlayStation 3 Graphics](#)

*The notebook will be able to upscale standard definition to 1080p HD*

Toshiba has announced that it would release later this year a Qosmio G40 notebook version powered by the [Cell graphics processor](#). The Cell is currently used in Sony's PlayStation game consoles and is touted as one of the most powerful processors in the world. The Japanese manufacturer plans to introduce the SpursEngine SE1000 chip, that packs four Cell Synergistic Processing Element (SPE) cores. The Cell micro-architecture is a joint project of IBM, Sony, and Toshiba, and is built on the Power architecture (mostly used in IBM's blade server lineup). Each of the four SPEs are individual SIMD Risc processors that handle single and double precision floating point operations. More than that, the SE1000 chip integrates a memory controller that allows each SPE core to communicate with 128MB of Rambus XDR memory over an ultra-high-speed (12.8GB/s) memory bus. The SpursEngine SE1000 graphics processor can hardware decode / encode MPEG 2 and H.264 video streams at full HD definition (1080p). While the SE1000 chip is blazing fast when it comes to high-definition video processing, its 3D performance is a little above the average. It seems like the upcoming Qosmio G40 notebook offering will be targeted especially at mobile multimedia enthusiasts, rather than at notebook gamers, a small but rapidly growing niche. Early last month, the Japanese notebook manufacturer entered talks with CyberLink, Leadtek and Corel regarding a new build of video playback software with full support for the SE1000 microcode. This way, the Qosmio G40 will be able to reach Toshiba's much-hyped "Super-resolution" image quality – a DVD-quality resolution forced to upscale at 1080p (and maybe beyond) resolutions. More than that, Toshiba plans to implement the Super-Resolution technology across a wide range of consumer electronics products, such as television sets and DVD players. The company has also promised that it would start shipping its next breed of TV sets powered by the same Cell processor. Such models would allow customers to enjoy exotic picture formats, such as 14-in-1 picture-in-picture images. Toshiba expects to sell about six million consumer electronics units within the first three years. However, the television sets will start shipping in early 2009, while the Qosmio G40 notebooks arrive later this year.