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Sanyo Chips in on the Blue DVD Wars

By Suzanne Deffree -- 8/16/2005
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When you are at war, every bit helps. And when the war is as fierce as that for the next-generation living room, every chip is key.

The blue laser DVD space has its own conflict raging between HD DVD -- encouraged by the DVD Forum and key companies Toshiba and Sanyo -- and Blu-ray technology -- pushed by the Blu-ray Disc Association and driven by Sony -- as the two camps continue to divide semiconductor players, manufactures and Hollywood studio contracts, challenging each other for the next-generation DVD standard and a place in living rooms across the globe.

While the outcome is still unknown, one large factor in the blue laser decision may turn out to be backward compatibility with current DVDs and audio CDs, and that's something the HD DVD side and especially Sanyo have zoned in on.

"It's simply a benefit that consumers can enjoy in their living room," Mark Waring, director, Sanyo Technology Center USA, said. "Beyond the benefit, it's almost an expectation from an educated consumer to have that capability for an optical disk player of any sort to have backward compatibility to play anything such as audio CDs currently and next will be backward compatibility to DVDs."

With that, Sanyo recently developed a signal processing LSI for HD DVDs, achieving on one chip playback and recording of HD DVDs, current DVDs and CDs. The chip, said Waring, lowers bill-of-material costs on next-generation DVD players by about $10 and reduces the size of the HD DVD drive and HD DVD player hardware.

"Our LSI simply brings another key ingredient to the overall picture. It brings another step toward reducing the complexity and, therefore, the cost of future HD DVD players," he said.

The LSI sees the HD DVD encoder/decoder circuit, DVD and CD encoder/decoder circuit and CPU all integrated in one chip to allow the record and playback of HD DVDs, DVDs and CDs. The LSI's smaller size comes from integrating the DVD/CD circuit and the HD DVD circuit with the error correction circuit block. By optimizing various signal processing architectures, Sanyo achieved full backward compatibility. Sanyo plans to release its LSI in Q2 2006.

Waring also points to the fact that HD DVD will be manufactured on same technology current DVDs are made on, more closely aligning today's DVD and future blue DVD technologies.

"HD DVD is much more closely related to current generation technology which brings the benefit of, we believe, a more stable, faster-time-to-market and a more reliable system -- one that will be leveraging off of the proven manufacturing capabilities already developed for current generation DVD," Waring said.

Divide and Conquer or Divide and Miss Out?

While whether the winner will be HD DVD or Blu-ray is still up in the air – Blu-ray weighs in with its own pro list, including a recently adopted content management system to guard against copyright infringement – what isn't up in the air is the recordable market's possibility.

Semico Research Corp. recently forecasted that DVD recorders by units will grow from 22.8 million this year to 86.9 million by 2009 and $12 billion in sales.

Semico cautioned, however, that various formats have hindered growth in the past. "Adoption has been hampered in recent years by the existence of several different formats: DVD-RAM, DVD-R/RW, and DVD+R/RW," said Adrienne Downey, senior analyst at the firm, in a statement.

Now that the industry is starting to make players, recorders and media more compatible with these different formats, the blue laser format war is brewing and may see even more competition.

"Two blue-laser-based formats, Blu-ray and HD DVD, have divided the consumer electronics industry, the PC industry, as well as Hollywood itself. Developed in China, a third high-definition format, EVD, is red-laser-based and complicates the whole mess even more," Downey said.