LG Electronics, ARM To Provide Consumers With High Quality HDTV Experience

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ARM today announced at CES, Las Vegas, NV., that LG Electronics, Inc. has licensed ARM OptimoDETM embedded signal processing technology for use in its video encoding and decoding product lines. LG Electronics selected OptimoDE signal processing technology over a wide range of other programmable digital signal processing technologies to address the increasing processing requirements of next-generation video applications. LG's first product that will benefit from OptimoDE technology is an H.264 based high-definition digital television (HDTV), which will use the technology to provide the processing performance required by HDTV frame rates and frame sizes, while retaining reprogrammablity to accommodate multiple video decoding standards.

The growing market for consumer products that are capable of reproducing higher definition pictures is driving manufacturers to explore and expand the technologies used to address this need. The traditional dedicated MPEG2-based hardware accelerator is no longer a viable solution. The new requirement is for a high performance and flexible processor. OptimoDE Data Engines satisfy this requirement by delivering unprecedented, reprogrammable processing performance while supporting multiple standards. OptimoDE solutions incorporate a configurable data path so engines can be tuned to the specific requirements of an algorithmic domain. The fully configurable OptimoDE technology will enable LG Electronics to optimize the performance and cost competitiveness of providing high quality digital images across their product range, including HDTVs.

"LG Electronics is further proof that OptimoDE technology is providing our Partners with an improved approach and necessary alternative to digital signal processing solutions," said Tom Cronk, Data Engines general manager, ARM. "OptimoDE technology is a groundbreaking signal processing solution that enables companies like LG Electronics to address the increasing need for high performance and increased programmable computational power in consumer entertainment devices."

"Conventional signal processing approaches no longer serve our customers' rapidly changing technology demands, as they do not address the performance and reprogrammability needs of our video encoding and decoding product lines," said Dr. Seung-Jong Choi, vice president, DTV Lab., LG Electronics. "The OptimoDE Date Engine satisfies the data and signal processing demands of our next-generation algorithms, while ensuring the flexibility to support multiple standards."

About OptimoDE Data Engines

ARM OptimoDE Data Engine technology is licensable intellectual property with an associated tool environment. OptimoDE technology is a configurable VLIW-styled architecture targeted at high-performance embedded signal processing applications. The tool environment enables the designer to configure and extend the type and number of data path resource units. The size and topology of local storage and the level of interconnect are also fully configurable. OptimoDE Data Engines are programmed in either C or C++ and are provided with a sophisticated C compiler and profiling analysis tools.

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