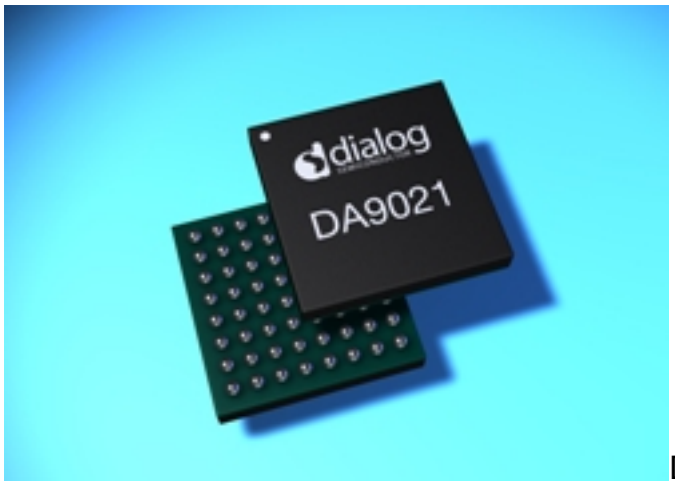
Dialog Semiconductor Adds Arm Multicore Support in Next Generation of System Level Power Management ICs



Dialog Semiconductor has launched two third generation advanced system level power management ICs (PMICs) for tablet PCs, smartphones, embedded computers and multimedia players. Delivering class-leading energy efficiency and power-up flexibility the new DA9053 and DA9021 devices support major mobile graphics and application processor families.

The DA9053 becomes Dialog's flagship system level PMIC for high-end multicore-based applications and supports the ARM Cortex™ family whilst the DA9021 addresses lower power cost-sensitive applications.

"Dialog's latest generation PMICs extend the company's leadership in configurable system power management via multicore support," said Udo Kratz vice president and general manager of Dialog's audio and power management business unit. "Through our Processor Partner Programme we have already gained multiple design wins across a broad range of applications and expect the first DA9053 based consumer devices to be on store shelves around Q3 of this year."

The DA9053 is an advanced high performance PMIC that provides multi-processor core power and delivers unprecedented power-up flexibility with exceptional energy efficiency. It combines a powerful 1.8A rated dual-input DC/USB power path router with a switching battery charger and includes support for multiple external memory configurations. The DA9053 is ideally suited for powering the latest generation of demanding portable media and wireless computing applications, such as tablet PCs.

The DA9021 delivers the same highly configurable engine to optimise power-up sequencing and has been retargeted to be suitable for lower power single processor core portable consumer markets, such as e-readers and DAB receivers, to help drive down the design costs. It includes a 1.3A single input USB charger and its internal regulators deliver approximately half the total current relative to DA9053.

“In 2009 we launched the DA9052, the world’s first easily configurable system PMIC; since then there has been a rapid growth in the portable device market, especially for tablet PCs and e-readers. Dialog’s third generation of PMICs have been designed with these systems specifically in mind, continuing such innovation. The DA9053 and DA9021 devices, with their advanced feature sets and performance, will enable manufacturers to easily get new, perfectly power-optimised consumer devices to market,” concluded Kratz.

The DA9053 is supplied in a 169 ball VFBGA 7 x 7mm package with 0.5mm pitch or VFBGA 11x11mm package with 0.8mm pitch and is available in both consumer and automotive grades. The DA9021 is supplied in a 64 ball 4 x 4mm wafer-level package with 0.5mm pitch. Samples of both the DA9053 and the DA9021 are available immediately.
Companies supported by Dialog’s Processor Partner Programme include Freescale, Marvell, Renesas (NEC) and Samsung. For example, the DA9053 PMIC features on Freescale’s i.Mx53 multimedia reference platform and will be demonstrated at the Freescale Technology Forum in San Antonio, 20 -23 June.

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