Digital Signal Controller

DSP56F803

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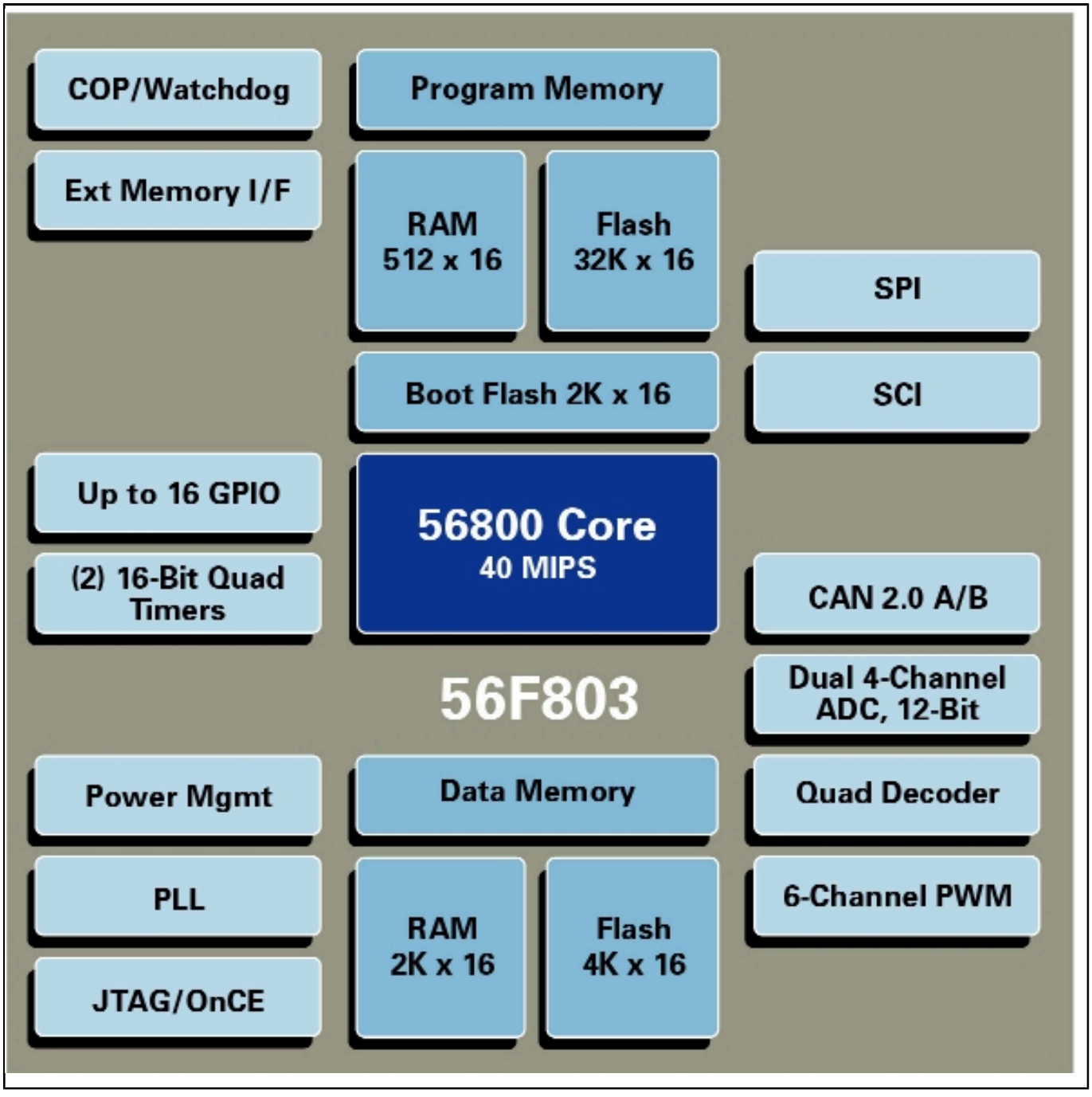
The 56F803, a member of the 56800 core-based family of Digital Signal Controllers, combines the processing power of a DSP and the functionality of a microcontroller with a flexible set of peripherals on a single chip. This creates an extremely cost-effective solution for servo and motor control, power inverter and converter applications.

The 56800 core is based on a Harvard-style architecture consisting of three execution units which operate in parallel, allowing as many as six operations per instruction cycle. The microprocessor-style programming model and optimized instruction set allow straightforward generation of efficient, compact code for both DSP- and MCU-style applications. The instruction set is also highly efficient for C compilers, enabling rapid development of optimized control applications

DSP56F803 Block Diagram Block Diagram



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