Product Brief

Audo Future TC1736

The TC1736 Microcontroller is the value optimized member of the Audo Future product family. Designed for automotive applications, TC1736 has focus on Engine Control Units for low end cylinder engines in the economical automotive segment. It also meets the uprising demand of battery management in hybrid cars.

Equipped with 1MByte of embedded Flash and a maxium of 48KByte RAM the TC1736 is a high performance device offering great value for embedded real-time automotive applications. Its award-winning 80 MHz TriCore™ provides high-end microcontroller performance combined with sophisticated DSP capabilities.

Applications

- Engine Control Unit (ECU) focusing on 2-4 cylinder engines in economic cars and motorcycles
- Battery management & Inverter control for hybrid cars

Features

- High performance 32-bit super-scalar TriCoreTM V1.3.1 CPU with 4 stage pipeline
  - 80MHz at full automotive temperature range
  - Superior real-time performance
  - Strong bit handling
  - Fully integrated DSP capabilities
  - Single precision floating point unit (FPU)
- Memories
  - 1MByte embedded program flash with ECC
  - Up to 36 Kbyte Data Memory (LDRAM)
  - 8 Kbyte Code Scratchpad Memory (SPRAM)
  - 4 Kbyte Overlay Memory (OVRAM)
  - 32 Kbyte Data Flash Memory
  - Up to 8Kbyte instruction cache
- 8 DMA channels
- General Purpose Timer Array with digital signal filters and timer functionality to realize complex I/O signalling (GPTA)
- 1 Micro Second bus interface (MSC)
- 2 Asynchronous/synchronous serial interfaces (ASC)
- 2 High speed synchronous serial interfaces (SSC)
- 1 High-speed Micro Link interface (MLI)

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TC1736 Features

- 2 CAN nodes and 64 message objects
- 1 channel fast analog-to-digital converter
- 24 channels analog-to-digital converter @ 5V
- 70 digital general purpose I/O lines
- On-chip debug support (OCDS)
- Dedicated emulation device chip for multicore debugging, tracing and alibration
- Supply Voltage 1.5V, I/O Voltage 3.3V
- Full automotive temperature range
- -40° to +125°C
- QFP-144 package

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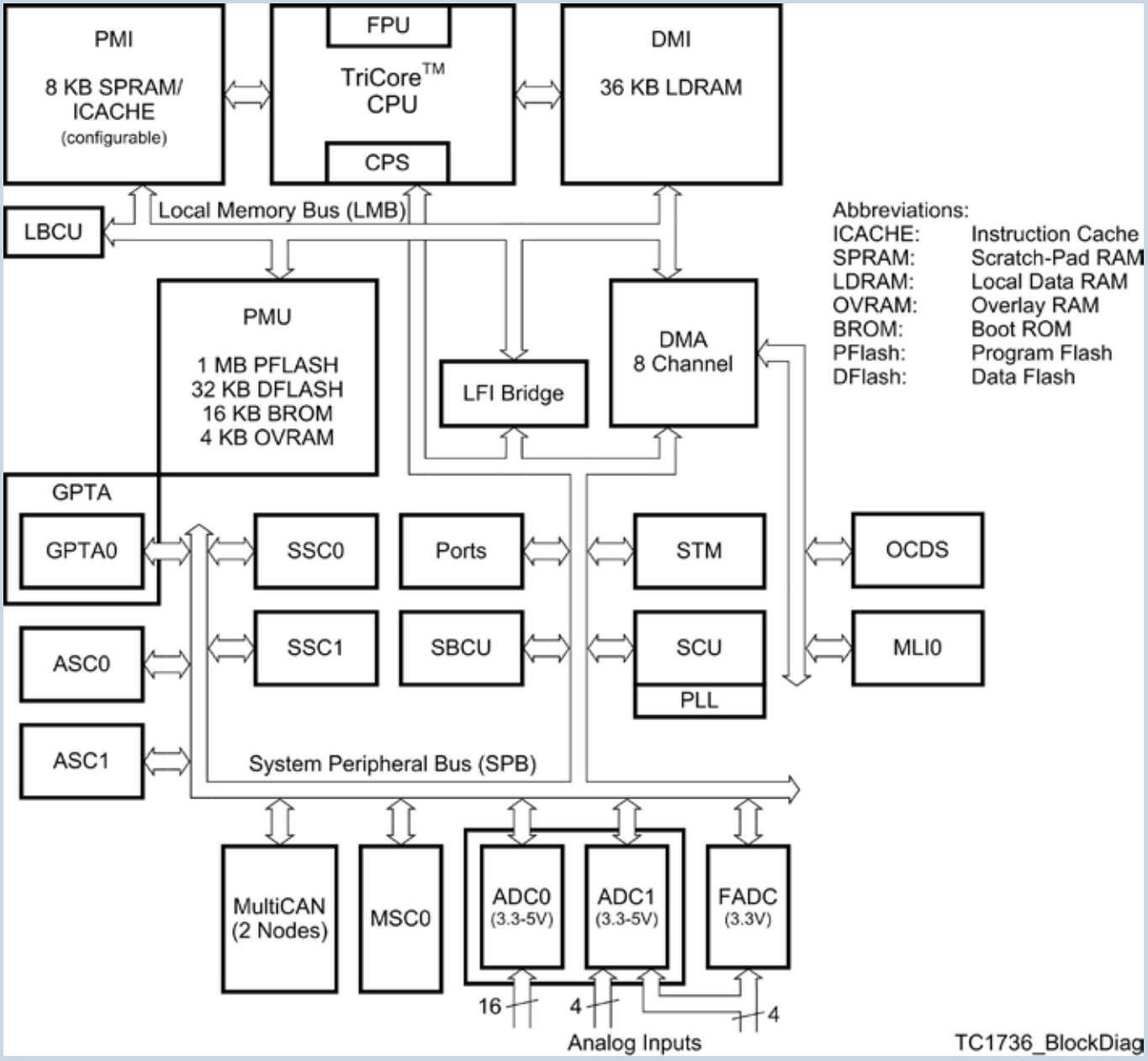

Type	CPU Clock	Temperature	Program Flash	Package
SAK-TC1736-128F80HL	80MHz	-40/125°C	1MB	QFP-144

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