DIOPSIS 940HF Evaluation Kit

Atmel brings floating point DSP platform to consumer market

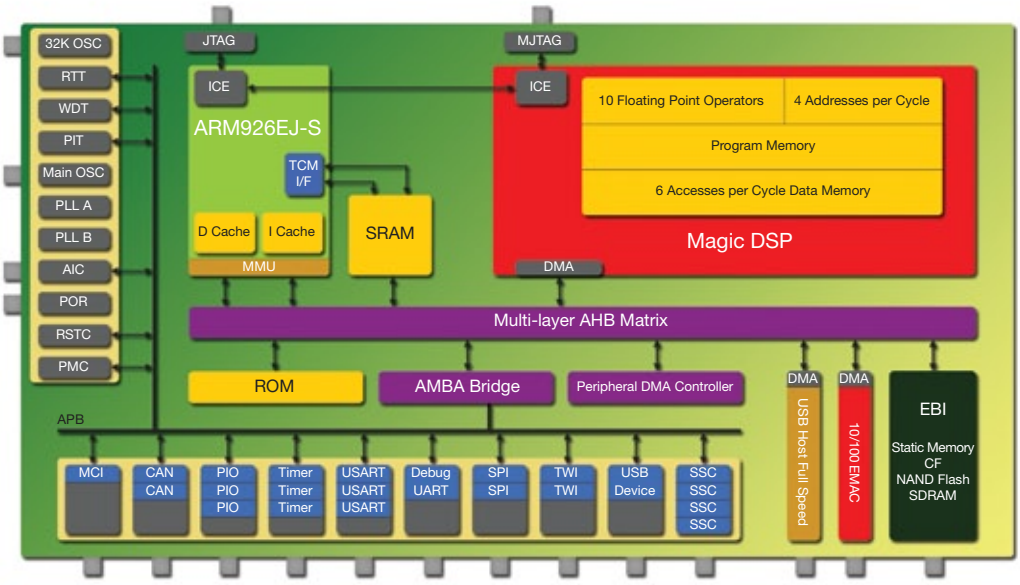
The Atmel DIOPSIS® 940HF Evaluation Kit enables fast application development, prototyping and debug of the AT572D940HF high performance dual core single-chip processor that couples an ARM926EJ-S™ ARM® Thumb® RISC CPU and a VLIW Magic DSP™ optimized for audio, communications and beam-forming applications. The DIOPSIS 940HF Evaluation Kit is composed of two modules: the CPU Module, a Single Board Computer, and the Back Module containing an extensive set of connections for networking and external interfaces. The extensive software support includes on-board embedded Linux® OS, C-callable libraries of DSP functions and DBIOS low-level peripheral access routines, tutorials and coding examples.

Key Applications

- High-Precision, Professional Audio
- Acoustic Signal Processing
- Image Analysis
- Robotics
- Radar

Key Benefits

- High performance Single Board Computer
- Linux OS on board
- Full GNU Toolchain support
- Complete I/O Peripheral set
- Fast prototyping of applications



Atmel DIOPSIS® 940HF Block Diagram

DIOPSIS 940HF CPU Module

- Diopsis 940HF SOC
- 1 GFLOPs-1.6 GOPs at 100 MHz
- Parallel Flash: 16 MByte (4Mx32)
- SDRAM: 64 MByte (16Mx32)
- NAND Flash: 256 MByte (256Mx8)
- Ethernet PHY
- Power measurement circuitry
- Voltage regulator 3.3V/1.2V
- Configuration jumpers and DIP SWITCH
- Clock circuitry
- Back Module connectors

DIOPSIS 940HF Back Module

- 4+4 analog stereo I/O channels (2 CODECs)
- USB ports (1Device, 2 Host)
- Serial I/O ports (1 RS232, 2 LVTTL , 2 SPI, 3 SSC)
- 1 Debug unit RS232 serial I/O port
- 2 CAN ports with transceivers
- 1 Secure Digital slot
- 2 JTAG ports (Magic DSP and ARM)
- 1 Ethernet 10/100 port
- 1 Real Time Clock controller with back-up battery
- 1 MIDI IN port
- Reset logic (button and remote)
- Clock circuitry for the CODECs
- Configuration jumpers & status LEDs
- Voltage regulators: 5V/3.3V (digital) and 5V/4.5V (analog)
- CPU Module connectors

Kit Includes

- Evaluation board
- Linux O.S. on Secure Digital card
- DIOPSIS940 BSP DVD
- Extensive DSP library functions (C callable)
- DBIOS low level peripherals access library (C callable)
- Tutorials and coding examples
- I/O audio cables
- Power supply

DIOPSIS®

ARM® POWERED

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