



KAL - Large IP Cores:

Analog IP Cores:

- **DDR2/3 PHY**
- Analog IP cores (ADC, DAC, PLL,) are available – Please contact us.
- We are expert in custom analog IP

CPU Cores:

- **8 bit - 8051**
- 8 bit- HC68HC11
- 8 bit - PIC Processor
- 8 bit – Z80
- 16 bit – D6800
- **DSP – MSP430**
- 32 bit - ARM 9xx/11xx

Memory Controllers:

- **SD/SDIO 2.0/3.0 Controller**
- SDRAM Controller
- **DDR/DDR2/DDR3 SDRAM Controller**
- NAND Flash Controller
- Flash/EEPROM/SRAM Controller
- PCMCIA/CompactFlash Host Adapter
- PCMCIA/CompactFlash Slave Controller

Clock Synchronization:

- IEEE 1588 Slave
- IEEE 1588 Master

A new 8051 IP core our IP core partner [Digital Core Design](#) is now available. [Contact us for more information.](#)

Quad-Pipelined Ultra High Performance 8051 IP core for ASIC/FPGA

Digital Core Design released Revolutionary Quad-Pipelined Ultra High Performance DQ8051 core [running Dhrystone 2.1 benchmark program up to 26.62 times faster than the original 80C51 at the same clock frequency.](#)

"DQ8051 has been build based on DCD's brilliant engineering and 11 years of know-how in microcontrollers market. DQ8051 provides **up to 0.25053 DMIPS/MHz (VAX MIPS)**, which locates DQ8051 at the top far away from competitors. DQ8051 is **2 times faster than any competitors 8051**, uses as little as **8 200 ASIC gates, and runs 430 MHz** top clock speed - it directs DQ8051 as a perfect choice for all embedded applications demanding cost effective and best possible solutions.

DCD have already licensed DQ8051 core to several our customers." - said Jacek Hanke DCD's president. DCD 8051 products have strong 10 years history of mass ASIC production, and its new DQ8051 includes all experience of its predecessors. Such heritage creates DQ8051 as very reliable and stable product.

[DQ8051XP](#) family provides efficient real-time JTAG based DoCD debugger and is fully user configurable - there are the most important features. DCD's 8051 were sold to hundreds of customers during the last 10 years of their active life. Each customer requires specific features for its own applications. They are provided by DQ8051 family as a heritage of DP8051. DQ8051 is very attractive because of its heritage, great flexibility, top technical performance, excellent support and very secure reliability.

- IEEE 1588 Master/Slave
- IEEE 1588 PTP Stack
- IEEE 1588 L2/L3 Solution

Peripherals:

- Floating Point Unit
- I2C Master/Slave
- SPI Master/Slave
- CAN bus
- LIN bus
- Programmable Peripheral Interface
- UART, UART with FIFO
- PWM
- Timer 8254
- Programmable Timer
- Interrupt Controller
- Ethernet Controller 10/100/1000 BaseT
- DMA Controller
- USB 1.0/2.0 Host/Slave
- On Chip Bus Analyzer

PCI Bus Controllers and Peripherals:

- PCI Express
- PCI-X Host Bridge Master/Target
- PCI Host Bridge Master/Target
- PCI-PCI Bridge
- PCI-ISA Bridge
- PCI Bus Arbiter

Encryption:

- AES 128bit/256bit
- ECC

AHB/APB Peripherals:

- AHB Bus Master/Slave

DQ8051XP family is available as VERILOG Source code, VHDL Source code and FPGA Netlist formats for immediate purchase from Digital Core Design. DCD also offers a variety of additional packaging and flexible licensing options to fit customer's specific needs. DCD offers very attractive **discounts for users of any 8051/80251 cores (including all competitors' 8051 products).**

Contact us for more information.

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 Untill the next eNews,

Thanks yu for your attenstion.

KAL

- APB Bus Master/Slave
- AHB/AXI DMA Controller
- AXI Bus Master/Slave

MIPS CPU Interface:

- MIPS - SysAD Bus Slave
- MIPS - SysAD Bus to PCI Host bridge
- MIPS - EC interface to SDRAM Controller
- MIPS - EC Interface to PCI Host Bridge
- MIPS - EC Interface Bus Slave

PowerPC CPU Interface:

- Power PC Bus Master
- PowerPC to PCI Host bridge
- PowerPC Bus Arbiter
- PowerPC Bus Slave

ARC CPU Interface:

- ARC - Peripheral Controller for ARCTangent
- ARC – ARCTangent to PCI host Bridge

[Contact us for data sheet](#)

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