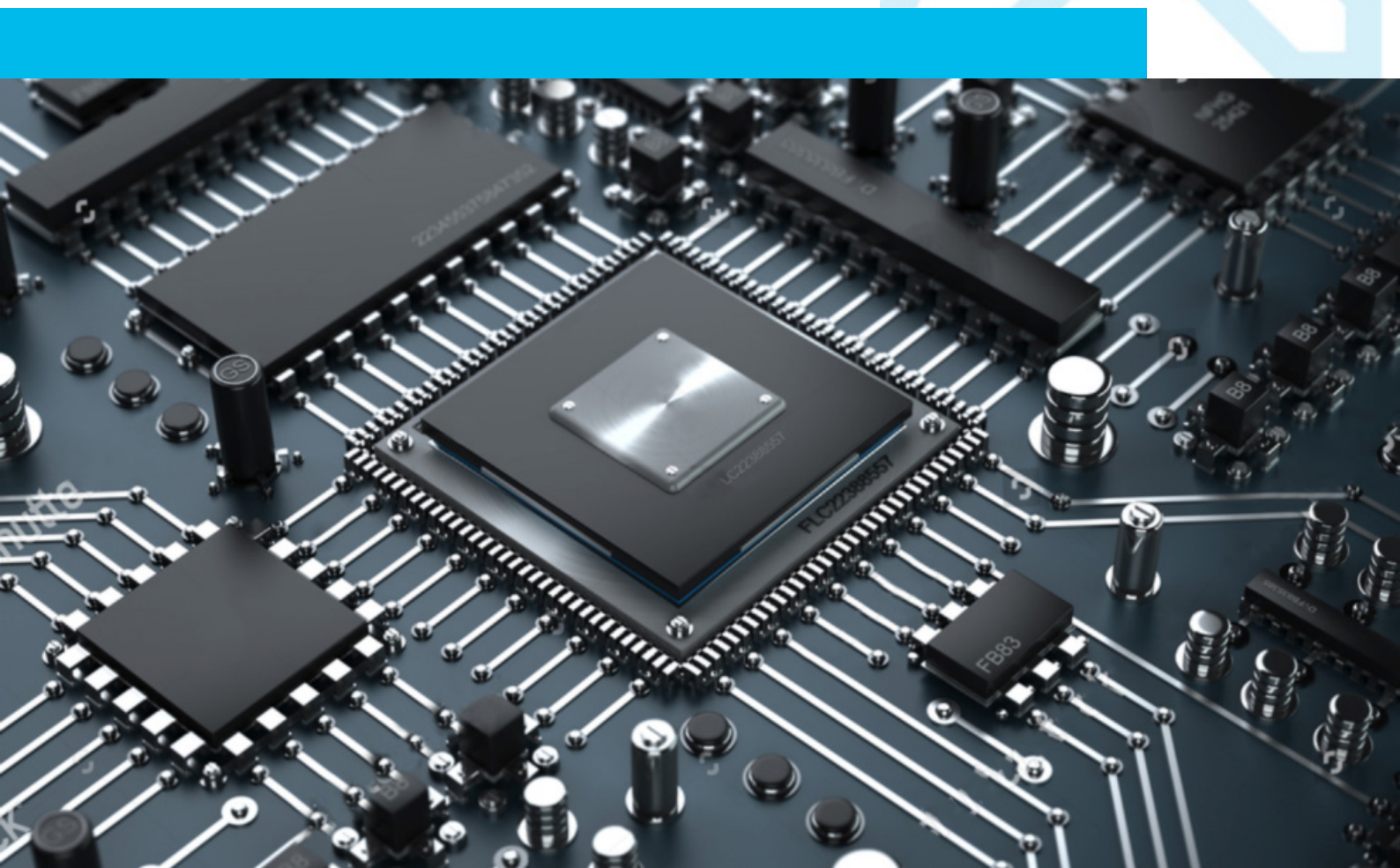


D32PRO IDE



COMPANY OVERVIEW

Digital Core Design is a leading IP Core provider and a System-on-Chip design house. The company was founded in 1999 and since the very beginning has been focused on IP Core architecture improvements. Our innovative, silicon proven solutions have been employed by over 300 customers and with more than 500 hundred licenses sold to companies like Intel, Siemens, Philips, General Electric, Sony and Toyota. Based on more than 70 different architectures, starting from serial interfaces to advanced microcontrollers and SoCs, we are designing solutions tailored to your needs.

IP CORE OVERVIEW

Digital Core Design offers **solutions tailored to your needs**. That's why our deeply embedded and royalty-free 32-bit CPU, the D32PRO goes in hand with **Eclipse-based Integrated Development Environment (IDE)**. This powerful tool offers one-click access to everything you need to complete your project. So graphical configuration tools, profiling tools, analysis tools, demos, software examples, documentation, technical support and community forums make embedded development simple and productive for you.

Fully scalable

The D32PRO is a fully scalable 32-bit CPU. So as the CPU has been tailored to you needs, so the development tools should be. That's why we have chosen to base D32PRO's IDE on Eclipse as it offers an excellent software framework for building software development environments and is becoming a standard framework used by many embedded software vendors. Our solution is an Integrated Development Environment (IDE) that supports the D32PRO CPU. It comprises a **suite of tools** used to develop and debug embedded applications, including:

- an optimized C/C++ compiler,
- source code editor,
- project build environment,
- debugger,
- D32PRO CPU simulator
- and many other features.

The **intuitive IDE** provides a single user interface taking you through each step of the application development flow. Familiar tools and interfaces allow users to get started faster than ever before. The D32PRO's IDE combines the advantages of the Eclipse software framework with advanced embedded debug capabilities from DCD resulting in a compelling feature-rich development environment for embedded developers.

It's easy like 1-2-3

DCD's got experience in 8051 hardware debuggers – the DoCDTM hardware debugger has been even awarded as EDN's Hot Product of 2013. So there's no wonder then, than the D32PRO must be equipped with hardware debugger, which guarantees full CPU control from the Eclipse level.

Unquestionable advantage of DCD's hardware debugger is a fact, that it needs only two lines for communication, where the competitive solutions are based on JTAG interface, which needs 5 pins typically.

So are you ready for these 3 little steps?

1. D32PRO IP Core
2. Eclipse IDE
3. D2 - USB Cable

1. D32PRO IP Core

The Debug IP Core is a real-time hardware debugger, which provides an access to all chip registers, memories and peripherals connected to DCD's IP Core (D32PRO). It controls CPU work by a non-intrusive method. The Debug IP Core is provided along with D32PRO as HDL source code, as well as FPGA EDIF netlist - depending on customer requirements.

2. IDE based on Eclipse

Eclipse-based Integrated Development Environment (IDE) offers one-click access to everything you need to complete your project. So, graphical configuration tools, profiling tools, analysis tools, demos, software examples, documentation, technical support and community forums make an embedded development simple and productive for you.

3. D2-USB cable

The D2 interface is a two-wire serial communication protocol designed for debugging and in-system programming of the D32PRO device. It contains a master side which denotes a debugger or a programmer and a target slave side which is the D32PRO CPU. It shall be emphasized that the D2 uses two wires to communicate: the clock line (D2CK) and data line (D2IO). DCD supplies a fully featured software debugger which communicates with the USB 2.0 High Speed cable (D2HAD). The D2HAD is a handy pendrive style cable, which benefits from USB high speed data transfer.

LICENSING

Comprehensible and clearly defined licensing methods without royalty-per-chip fees make use of our IP Cores easy and simple.

- **Single-Site license option** - dedicated to small and middle sized companies which run their business at one place.

- **Multi-Site license option** - dedicated to corporate customers which operate at several locations. The licensed product can be used at selected company branches.

In all cases the number of IP Core instantiations within a project and the number of manufactured chips are unlimited.
There are no restrictions regarding the time of use.

There are two formats of the delivered IP Core that you can choose from:

- VHDL or Verilog RTL synthesizable source code (called HDL Source code)

- FPGA EDIF/NGO/NGD/QXP/VQM (called Netlist)

HDL Source code is suitable for ASIC and FPGA projects. The Netlist license is intended for FPGA projects only.

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