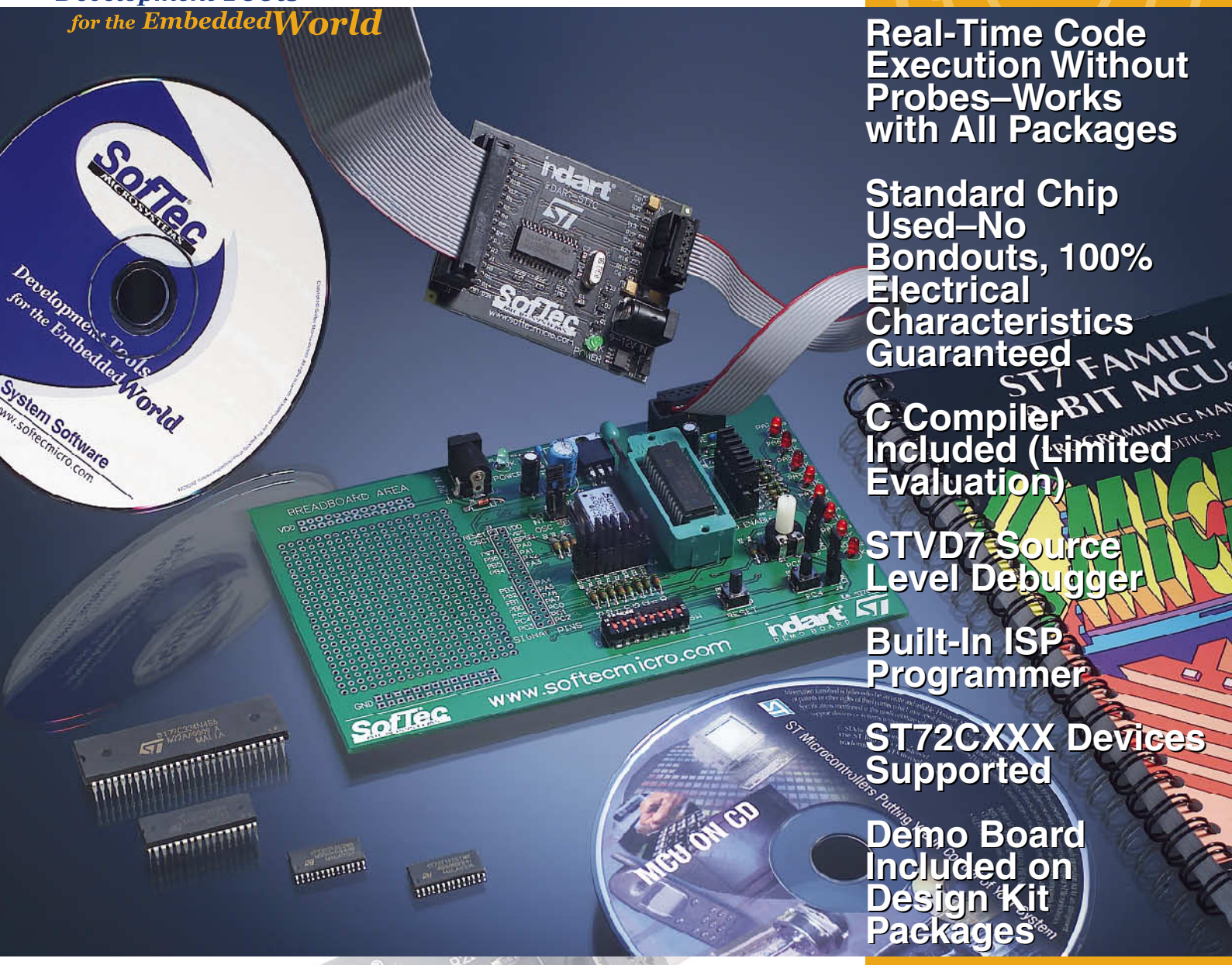
SofTec MICROSYSTEMS

Development Tools for the Embedded World



- Real-Time Code Execution Without Probes–Works with All Packages
- Standard Chip Used–No Bondouts, 100% Electrical Characteristics Guaranteed
- C Compiler Included (Limited Evaluation)
- STVD7 Source Level Debugger
- Built-In ISP Programmer
- ST72CXXX Devices Supported
- Demo Board Included on Design Kit Packages

ST7C-inDART/D

In-Circuit Debugger for STMicroelectronics ST72CXXX FLASH Devices

indart® SERIES

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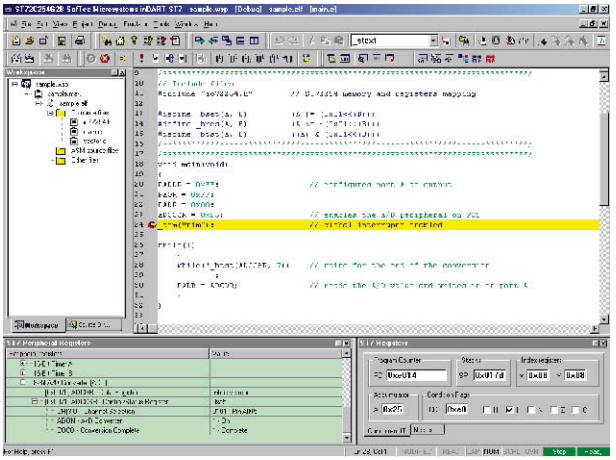
ST7C-inDART/D

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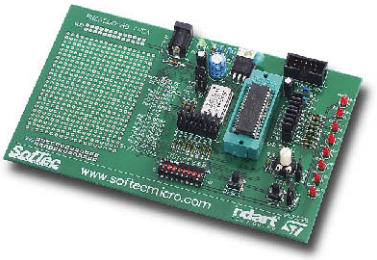
Overview

inDART-ST7 Series In-Circuit Debuggers are powerful entry-level tools for STMicroelectronics ST7-based systems. inDART-ST7 Series In-Circuit Debuggers take advantage of STMicroelectronics' STVD7 (STMicroelectronics Visual Debug) Integrated Development Environment and the ISP (In Situ Programming) feature to program the FLASH memory of the ST7 family of microcontrollers. Together with STVD7, inDART-ST7 Series In-Circuit Debuggers provide you with everything you need to write, compile, download, in-circuit emulate and debug user code. Full speed program execution allows you to perform hardware and software testing in real time. inDART-ST7 Series In-Circuit Debuggers are connected to the host PC through a parallel port, while the 10-pin probe of the debuggers fits into the target's standard ISP connector.



STVD7 Integrated Development Environment

The inDART-ST7 user interface (common for all of the inDART-ST7 Series In-Circuit Debuggers) is based on the ST7 Visual Debug Integrated Development Environment (STVD7). STVD7 enables programs to be executed and stopped where desired, while viewing the memory contents. It offers the ability to step through and examine code at the C source level and the Assembly instruction level. You can introduce breakpoints and run or single-step the executable, while viewing the source and observing current program values. All registers and memory locations are accessible for both read and write operations.

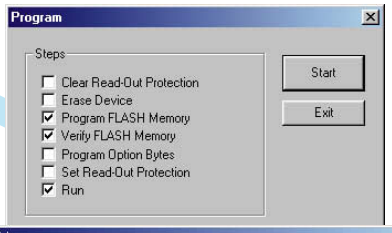


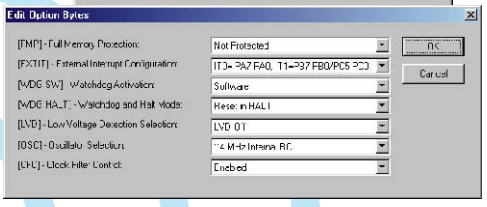
Demo Boards

On Design Kits packages, a full-featured experiment board for a specific ST7 microcontroller is also included. Each demo board includes DIP-switches, jumpers, LEDs, push-buttons, a potentiometer, prototyping area and a standard ISP connector and can be used for evaluation/ experiments in the absence of a target application board.

What is In Situ Programming (ISP)?

The ISP feature allows you to update the content of FLASH program memory when the chip is already plugged on the application board. ISP programming uses a serial protocol to interface a programming tool like inDART. The ISP feature can be implemented with a minimum number of added components and board area impact. inDART-ST7 Series In-Circuit Debuggers use the standard, 10-pin ST7 ISP connector to program and in-circuit emulate the target device.





Supported Devices

STMicroelectronics ST72CXXX (ST72104, 124, 171, 215, 216, 254, 314, 334).

Debugging Capabilities

- Source level and symbolic debugger;
- Reset, Go, Go From Reset, Go to Cursor, Stop, Step Into, Step Over, Step Out;
- Unlimited number of breakpoints;
- Watch variables, registers and peripherals.

Programming Capabilities

- Blank Check/Erase/Program/Read/Verify FLASH memory;
- Blank Check/Erase/Program/Read/Verify EEPROM memory;
- Blank Check/Erase/Program/Read/Verify Option Bytes.

System Requirements

- A PC running Windows 9x, 2000 or NT;
- 32 MB of RAM plus 20 MB of HD space;
- One free parallel port.

Electrical And Physical Specifications

Operating Voltage: 5 V DC (from target board, via ISP connector) or 9 - 12 V DC (from power connector)
Power Consumption: 10 mA
Dimensions: 70 x 55 x 15 mm
Weight: 25 g
Temperature Range: 0 - 50 °C

Ordering Information

ST7C-INDART/D: standalone inDART-ST7 for the support (debugging/programming) of ST72CXXX devices. Requires a working user target board.
ST7C254-INDART, ST7C334-INDART: Design Kit packages. Include a device-specific demo board, ready to be used with ST7C-INDART/D.

Order Code	In-Circuit Debugger/	Demo Board
ST7C-INDART/D	●	
ST7C254-INDART	●	● (*)
ST7C334-INDART	●	● (**)

(*) For ST72C104, 215, 216, 254
(**) For ST72C314, 334

Software Upgrades

The latest version of the inDART-ST7 series user interface is always downloadable for free from our web site.

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