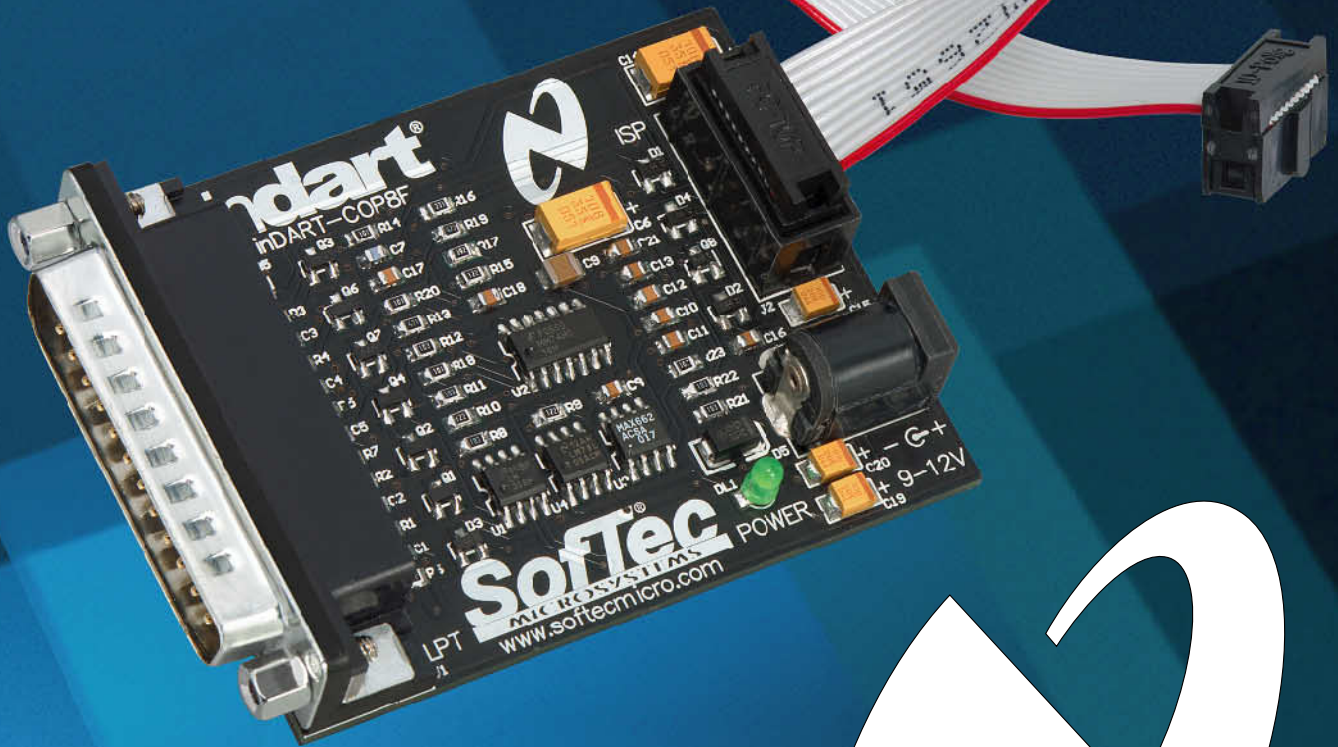


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# inDART-COP8F

In-System Programmer  
for National Semiconductor  
COP8 FLASH Devices



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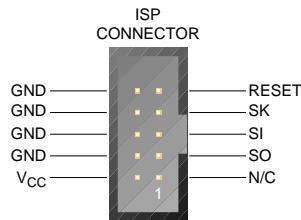
## In-System Programmer for National Semiconductor COP8 FLASH Devices

### Overview

inDART-COP8F is a powerful entry-level tool for National Semiconductor COP8-based systems. inDART-COP8F takes advantage of SofTec Microsystems DataBlaze programming interface and the ISP (In-System Programming) feature to program the FLASH memory of the COP8 family of microcontrollers. inDART-COP8F is connected to the host PC through a parallel port, while the 10-pin probe of the product fits into the target's ISP connector. inDART-COP8F can be powered by the target application (through the ISP connector) and works from 2.7 to 5.5 V. inDART-COP8F implements a very fast ISP programming algorithm: an erase/program/verify cycle is performed in less than 15 seconds on a 32K device.

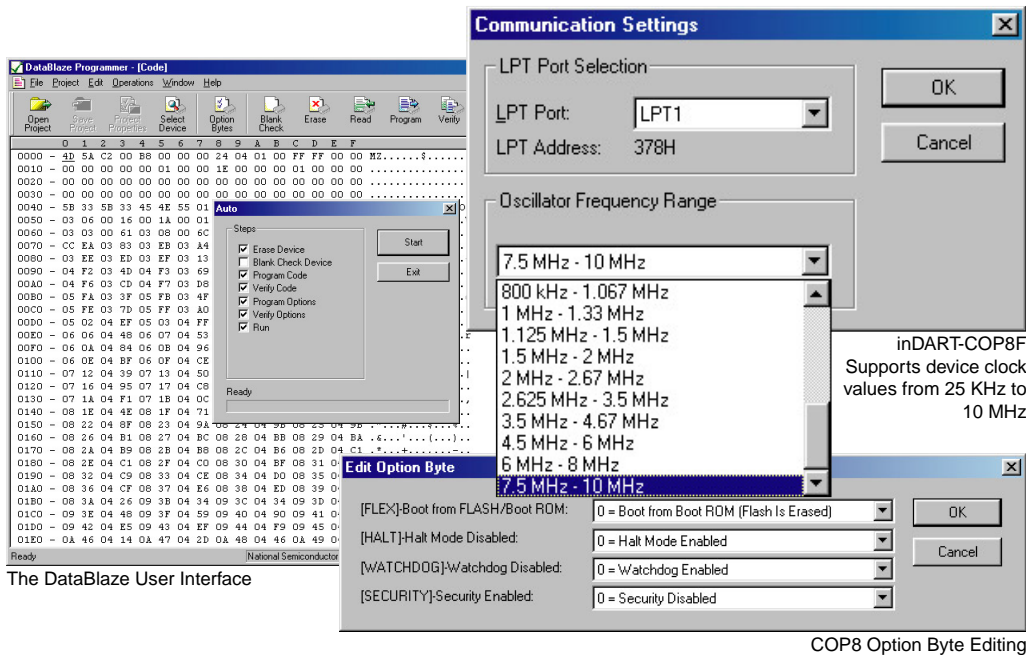
### What is In System Programming (ISP)?

The ISP feature allows you to update the content of the FLASH program memory when the chip is already plugged on the application board. The ISP feature can be implemented with a minimum number of added components and board area impact. inDART-COP8F uses a 10-pin ISP connector to program the target device. You must therefore provide such connector on your target board. The serial ISP routines are implemented over the SI, SO and SK lines of the COP8 MICROWIRE/PLUS interface. In order to enter the ISP programming mode under all conditions—in particular when the option bit 0 (FLEX) is set—inDART-COP8F supplies a 2 x VCC voltage to the SI pin.



### DataBlaze Programming Environment

DataBlaze is a full-featured, easy-to-use programming utility. It offers memory editing capabilities, blank check/erase/read/program/verify operations and project handling. DataBlaze is a common programming environment for all of the inDART series tools.



**Supported Devices**  
National Semiconductor COP8 FLASH devices, in all packages (COP8AME9, COP8ANE9, COP8CBE9, COP8CBR9, COP8CCE9, COP8CCR9, COP8CDE9, COP8CDR9, COP8SBR9, COP8SCR9, COP8SDR9).

### Programming Capabilities

- Blank Check/Erase/Program/Read/Verify FLASH 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: 40 mA  
Dimensions: 70 x 55 x 15 mm  
Weight: 35 g  
Temperature Range: 0 - 50 °C

### Ordering Information

inDART-COP8F/P: standalone inDART-COP8F for programming COP8 FLASH devices.

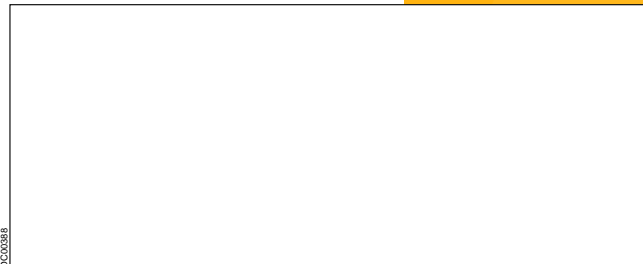
### Software Upgrades

The latest version of the inDART-COP8F user interface is always downloadable for free from our web site.



The inDART-COP8F Standard Package

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