



# C-Compiler

**C-Compiler for ARM®:** Features: **STD:** • ANSI C-Compiler for ARM code generation • IDE with Application Builder, editor, project manager, code browser • Support of ELF/DWARF debugging • Help files available as HTML, Help and PDF file **ADV:** • Standard + Thumb code generation **PRO:** • Includes Global Optimizer • Improve program size and runtime speed by 10 - 15% **C-Compiler for AVR®:** Features: • ICCAVR supports all AT90S and ATmega devices (except for 1200, which does not have SRAM), Tiny26, and AT94K FPSLIC. ANSI C-Compiler: • Modern fast C-Compiler with FULL support for the ANSI C language • Not micro-C or extended K&R C • 32-bit longs, 32-bit IEEE single precision floating point **Professional Version ICCAVR PRO:** • Code Compressor Optimizer, which reduces final code by 8 - 18%. This state-of-the-art whole-program optimizer is not available in any other commercial embedded compilers. **C-Compiler for Freescale Microcontrollers:** Features: • ANSI C embedded systems development tools with comprehensive target support for Freescale Microcontrollers • Write interrupt handlers in C • Supports inline assembly and can interface with assembly modules • ANSI C-Compiler: Modern fast C-Compiler with FULL support for the ANSI C language, NOT micro-C or extended K&R C • 32-bit longs, 32-bit IEEE single precision floating point **C-Compiler for TI MSP430:** Features: • ANSI C embedded systems development tools with comprehensive target support for TI MSP430 Microcontrollers • Write interrupt handlers in C • Supports inline assembly and can interface with assembly modules • ANSI C-Compiler: Modern fast C-Compiler with FULL support for the ANSI C language, NOT micro-C or extended K&R C • 32-bit longs, 32-bit IEEE single precision floating point

Supported ARM Devices			
Device	Header File	IDE Device Selection	Application Builder
Atmel SAM7S/SAM7A	✓	✓	✓
Atmel AT91 ARM7	✓	✓	✓
Atmel SAM7X	✓	✓	✓
NXP LPC21xx	✓	✓	✓
NXP LPC22xx	✓	✓	✓
NXP LPC23xx	✓	✓	✓
Analog Device ADuC702x	✓	✓	✓
ST STR71x	✓	✓	✓
ST STR73x	✓	✓	✓
ST STR91x	✓	✓	✓

Target CPUs	Code Memory Size	Code Browser	Code Compressor	Debuggers	Application Builder	Optimizations	Digi-Key Part No.	Price Each
<b>C-Compiler for ARM</b>								
See Chart	Size of Device	Yes	No	Elf/Dwarf	Yes (See Chart)	Register Allocation, Peephole	ICCV7 ARM STD-ND ICCV7 ARM ADV-ND◆ ICCV7 ARM PRO-ND◆	275.00 395.00 575.00
<b>C-Compiler for AVR</b>								
C-Compiler for AVR	Up to 64K Bytes	Yes	No	AVR Studio, Flash Studio+	Yes	Register Allocation, Peephole	ICCV7 AVR STD-ND	275.00
C-Compiler ADV for AVR	Up to 128K Bytes	Yes	Yes	AVR Studio, Flash Studio+	Yes	Register Allocation, Peephole	ICCV7 AVR ADV-ND	395.00
C-Compiler PRO for AVR	Up to 128K Bytes	Yes	Yes	AVR Studio, Flash Studio+	Yes	Register Allocation, Peephole	ICCV7 AVR PRO-ND◆	575.00
<b>C-Compiler for Freescale Microcontrollers</b>								
Freescale HC08	Up to 64K Bytes	Yes	No Yes	ICD08	Yes	Peephole, Direct Page Addressing	ICC08 STD-ND ICC08 PRO-ND	275.00 575.00
Freescale HC11	Up to 64K Bytes	Yes	No	HC11 Debugger	No	Peephole	ICC11 STD-ND	275.00
Freescale HC12 / S12 / X	Up to 64K Bytes	Yes	No	HC12 ICD NoICE12	No	Peephole	ICCV7 CPU12 STD-ND◆ ICCV7 CPU12 ADV-ND◆	275.00 395.00
Freescale HC12 / S12 / X	4M Bytes using HC12 Expanded Memory Feature	Yes	No	HC12 ICD	No	Peephole	ICCV7 CPU12 PRO-ND◆	575.00
<b>C-Compiler for TI MSP430</b>								
Texas Instruments TI MSP430	Up to 64K Bytes	Yes	No	ICC430 built-in	Yes	Register Allocation, Peephole	ICCV7 430 STD-ND	275.00
Texas Instruments TI MSP430	Up to 128K Bytes	Yes	Yes	ICC430 built-in	Yes	Register Allocation, Peephole	ICCV7 430 ADV-ND	395.00
Texas Instruments TI MSP430	Up to 128K Bytes	Yes	Yes	ICC430 built-in	Yes	Register Allocation, Peephole	ICCV7 430 PRO-ND	575.00

### RoHS Compliant

**IARM-2103-ND** NXP LPC2103 ARM7 based, Single Board Computer with USB — **RoHS Compliant** ..... \$89.00



# C-Compilers



**HI-TECH PICC STD Compiler:** Features: • ANSI C - full featured and portable • Reliable - mature, field-proven technology • Multiple C optimization levels • An optimizing assembler • Full linker, with overlaying of local variables to minimize RAM usage • Comprehensive C library with all source code provided • Includes support for 24-bit and 32-bit IEEE floating point and 32-bit long data types • Mixed C and assembler programming • Unlimited number of source files • Listings showing generated assembler • Compatible - integrates into the MPLAB® IDE, MPLAB ICD2 and most third-party development tools • Runs on multiple platforms: Windows (up to Vista64), Linux, and Mac OS X  
**778-1000-ND** (019)..... \$995.00

**HI-TECH PICC-18 STD Compiler:** Features: • ANSI C - full featured and portable • Reliable - mature, field-proven technology • Modular - includes full object code linker and library manager • Cost-effective - productivity gains rapidly repay purchase cost • Compatible - integrates into the MPLAB® IDE, MPLAB ICD2 and most third-party development tools • Library source - for standard libraries and sample code for various peripherals and applications • Complete - includes macro assembler, preprocessor and one-step driver • Can run on multiple platforms - Windows (up to Vista64), Linux, and Mac OS X  
**778-1001-ND** (015)..... \$995.00

**PICC-18 PRO:** Features: • Integrates HI-TECH Software's IDE, HI-TIDE™ 3 • Integrates into the MPLAB® IDE, MPLAB ICD2 and most third-party development tools • Includes Library source - for standard libraries and sample code for I/O drivers • Includes macro assembler, linker, preprocessor, and one-step driver • Can run on multiple platforms: Windows (including 32-bit Vista), Linux and Mac OS X  
**778-1002-ND** (015P)..... \$1495.00

**DSPIC3x/PIC24:** Features: • ANSI C - full featured and portable, supporting all standard data types • Reliable - based on mature, field-proven technology used in our PICC and PIC18 compilers • Unlimited number of source files • Multiple optimization levels and types • Comprehensive C library with all source code provided • Mixed C and assembler programming • Listings showing generated assembler • Optimizing assembler • Compatible - integrates into the MPLAB® IDE, MPLAB ICD 2  
**778-1003-ND** (025)..... \$1195.00

**PICC Enterprise:** Features: • The HI-TECH C PRO for the PIC10/12/16 MCU Family compiler supporting all 10/12/14/16 series processors • The PICC-18 PRO compiler supporting all 18 series processors • The HI-TECH for dsPIC/PIC24 compiler supporting all PIC24, dsPIC30 and dsPIC33 processors • Includes printed manuals for HI-TECH C PRO for the PIC10/12/16 MCU Family, PICC-18 PRO and HI-TECH for dsPIC/PIC24 compilers  
**778-1004-ND** (099)..... \$3995.00

**PSoC Mixed-Signal Array:** Features: • Runs on Windows platform up to 64-bit Vista • Fully integrates into PSoC Designer™, the IDE for the Cypress PSoC Mixed-Signal Array, providing full compatibility with projects generated by PSoC Designer • Also comes in Lite Mode which is now the compilation technology within PSoC Express  
**778-1005-ND** (028)..... \$1495.00



# C-Compilers and Debuggers

**C-Compiler for PICmicro® MCUs:** C-Compiler for 12bit, 14bit and PIC18 PICmicro MCUs. This Integrated C Development Environment gives developers the capability to produce efficient code from an easily maintainable high level language. With full standard C compatibility, a full featured, Windows IDE with built-in functions and example programs, you will be able to develop embedded solutions for the full line of PICmicro MCUs. **ICD-S40:** This ICD unit communicates to the PC and the debugging software over an RS232 connection and operates at a 40MHz clock frequency resulting in quick debug times (RS232 serial cable included). The ICD-S40 is powered from the target board. The target board needs to supply 5 volts to the ICD. **ICD-U40:** This ICD unit connects to the PC and the debugging software over USB. It operates at a 40MHz clock frequency resulting in quick debug times (USB cable included). The ICD-U40 is powered from the USB bus and can optionally power your target board (5V only).

429-1000-ND	C-Compiler (PCWH).....	\$500.00
429-1001-ND	C-Compiler for 12 bit PIC's.....	\$50.00
429-1002-ND	C-Compiler for 14 bit PIC's.....	\$150.00
429-1003-ND	C-Compiler for PIC18.....	\$200.00
429-1004-ND	C-Compiler for 12-14 bit PIC's.....	\$350.00
429-1005-ND	In-Circuit Debugger ICD-S40 (Serial).....	\$75.00
429-1006-ND	In-Circuit Debugger ICD-U40 (USB).....	\$75.00
429-1007-ND	C-Compiler for MCU DSPIC.....	\$250.00
429-1008-ND	C-Compiler for MCU DSPIC with IDE.....	\$350.00
429-1009-ND	C-Compiler (PCWHD).....	\$600.00

**CCS Wireless-Ember ZigBee™ Edition Development Kit Includes:** • Two sensor boards with PIC16LF886 processor chips and EM260 modules • One base station board with PIC18LF4620 processor chip and EM260 module • Carrying Case • Exercise Booklet and Ember Documentation • In-Circuit Debugger/Programmer • DC Adapters (9VDC) • Serial PC to Prototyping Board Cable • Modular Cable (ICD to Prototyping Board) • USB (or serial) PC to ICD cable • Two 9V batteries

**429-1011-ND** Wireless-Ember Zigbee™ Kit ..... \$724.00

Feature Comparison	PCB	PCM	PCH	PCW	PCWH
Command Line Compiler	✓	✓	✓	✓	✓
Built-in Functions	✓	✓	✓	✓	✓
Example Programs	✓	✓	✓	✓	✓
Device Drivers	✓	✓	✓	✓	✓
MPLAB Interface	✓	✓	✓	✓	✓
Windows IDE				✓	✓
C Aware Editor				✓	✓
New Project Wizard				✓	✓
Debugger				✓	✓
Device Selector/Editor				✓	✓
Call Tree and Memory Map	✓	✓	✓	✓	✓
Statistics				✓	✓
Special Viewers				✓	✓
Serial Port Utility				✓	✓
12bit Support	✓			✓	✓
14bit Support				✓	✓
PIC18 Support			✓		✓

# microEngineering Labs, Inc. PicBasic Pro Compiler

PicBasic Pro converts your BASIC programs into files that can be programmed directly into a PICmicro® MCU. Full support for 14-bit and 16-bit MCUs. Limited support for 12-bit MCUs. The PicBasic Pro Compiler features BASIC commands, direct and library routine access to pins on PORTA, C, D, E, as well as PORTB, arrays, real IF...THEN...ELSE and interrupt processing in BASIC. Includes Code Designer Lite, a Windows integrated development environment (IDE) that is compatible with our PicBasic Pro Compiler. Comes with Software, Manual with instruction set and explanations and directions. Works on any version of Dos or Windows with CodeDesigner Lite. Windows95, 98, 2000, XP and ME compatible. The LAB-X1A is an independent hardware platform, similar to the Microchip PICDEM™. It can run programs written in any language, including C, Assembly, and PicBasic. Includes 40 Pin ZIF Socket, LCD display, memory, Rs232 port, Pots for ADCs and many extras.

444-1000-ND	PicBasic Pro Compiler.....	\$249.95
444-1001-ND	LAB-X1 Experimenter Board.....	\$199.95

More Product Available Online: [www.digkey.com](http://www.digkey.com)

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380