

8-bit Development Tools



Demonstration Boards (DEMO):

Demonstration boards are cost-effective development tools that allow users to program and debug application code with basic I/O functions and peripherals. Designers save on design time and costs with these demo boards targeted at specific HC(S)08/RS08 MCUs. CodeWarrior Development Studio for HC(S)08/RS08, Special Edition is included along with the board.



MON08 Multilink (USBMULTILINK08E):

The MON08 Multilink is a cost-effective development tool for all HC08 MCUs, and provides in-circuit debugging and programming through the standard MON08 serial debug/breakpoint interface. CodeWarrior Development Studio for HC(S)08/RS08, Special Edition is included along with the MON08 Multilink.



BDM Multilink (USBMULTILINKBDME):

The BDM Multilink is a cost-effective development tool for RS08, HCS08 and HCS12 MCUs, and provides real-time, in-circuit flash programming, emulation and debugging through the BDM interface. CodeWarrior Development Studio for RS08, HC(S)08 and HC(S)12, Special Edition is included along with the BDM Multilink.



Freescale Semiconductor's In-Circuit Emulator (FSICE):

The Freescale Semiconductor In-Circuit Emulator (FSICE) is a high-performance emulator system for HC08 MCUs. In addition to incorporating the debug features of traditional emulators, the FSICE system adds advanced features such as the USBMULTILINK08E cable for in-circuit flash programming, Ethernet interface for remote debugging and a real-time bus analyzer. The kit consists of the FSICE base station, the corresponding MCU emulator module (EM), all the cables and adapters needed and CodeWarrior Development Studio for HC(S)08/RS08, Special Edition.



Cyclone Pro (CYCLONEPROE):

Cyclone Pro provides all the capabilities of the USBMULTILINKBDME and USBMULTILINK08E plus USB/Ethernet serial interfaces. In addition, the Cyclone Pro has the ability to function as a stand-alone programmer with push buttons and LEDs to control operations. Cyclone Pro is the universal debugging and real-time emulation tool for all RS08, HC(S)08 and HC(S)12 MCUs. CodeWarrior Development Studio for HC(S)08/RS08 and HC(S)12, Special Edition is included along with Cyclone Pro.



CodeWarrior Development Studio for HC(S)08/RS08 Special Edition:

CodeWarrior Development Studio is a comprehensive special edition tool set for fast and easy MCU development. This tool suite provides the capabilities required by every engineer in the development cycle to exploit the capabilities of the RS08 and HC(S)08 architectures. Some of the features include full-chip simulation, flash programming and ProcessorExpert technology, which provides automatic C-code generation for most HC(S)08 on-chip peripherals.



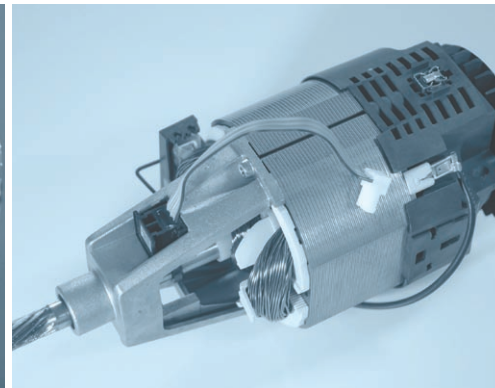
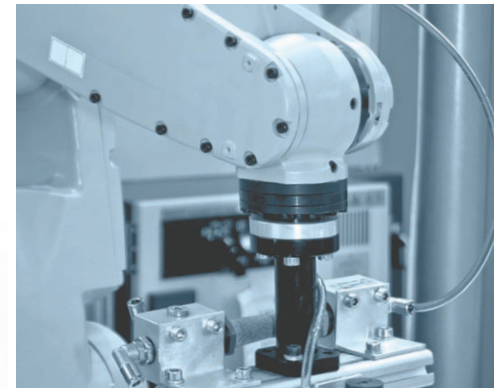
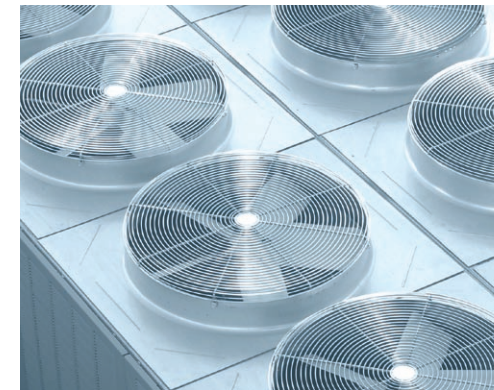
USB Mini Board for Freescale's Low-End 8-bit

Microcontrollers (USBSPYDER08): To aid fast and easy development for embedded systems engineers working on our low-end microcontrollers, Freescale has developed the cost-effective, high-performance USB debug tool—the USBSPYDER08. With the USBSPYDER08 you can spy into your application software, debug 8 leg 8-bit microcontrollers before you have your application board and kill bugs in your application software. This complete package delivers a cost-effective, yet powerful way to develop your products and speed time to market.



Evaluation Boards (EVB):

Evaluation boards allow users to program and debug advanced application code with expanded I/O functions and peripherals. HC(S)08 EVBs may include advanced features including zero insertion force (ZIF) sockets, LCDs and large prototype areas. CodeWarrior Development Studio for RS08, HC(S)08 and HC(S)12, Special Edition is included along with the board.



The Entry Point on the Controller Continuum—Only from Freescale

The Perfect 8-bit Compilation

Product summary

Learn More: For more information about 8-bit family products, please visit www.freescale.com/8bit.

Device	Flash	RAM	USB	ADC Channels		SCI (UART)	SPI	I ² C	COMP	Timer	Clock Type	Package					Dev Tools			Applications/Additional Features	Price
				10-bit	12-bit							DFN/QFN	QFP/LQFP	TSSOP	SOIC	DIP	DEMO	EVB	BDM		
MC9S08DN60	60 KB	4 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with EEPROM	\$2.84
MC9S08DN48	48 KB	2 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with EEPROM	\$2.65
MC9S08DN32	32 KB	2 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with EEPROM	\$2.47
MC9S08DN16	16 KB	1 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with EEPROM	\$2.28
MC9S08DV128	128 KB	8 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$3.45
MC9S08DV96	96 KB	6 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$3.16
MC9S08DV60	60 KB	4 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$2.93
MC9S08DV48	48 KB	2 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$2.74
MC9S08DV32	32 KB	2 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$2.56
MC9S08DV16	16 KB	1 KB		16		√	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN	\$2.37
MC9S08DZ128	128 KB	8 KB			24	2	√	√	√	8-ch.	OSC		100, 64, 48				√	√	√	S08 5V device with CAN and EEPROM	\$3.62
MC9S08DZ96	96 KB	6 KB			24	2	√	√	√	8-ch.	OSC		100, 64, 48				√	√	√	S08 5V device with CAN and EEPROM	\$3.32
MC9S08DZ60	60 KB	4 KB			24	2	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN and EEPROM	\$3.07
MC9S08DZ48	48 KB	2 KB			24	2	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN and EEPROM	\$2.88
MC9S08DZ32	32 KB	2 KB			24	2	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN and EEPROM	\$2.70
MC9S08DZ16	16 KB	1 KB			24	2	√	√	√	8-ch.	OSC		64, 48, 32				√	√	√	S08 5V device with CAN and EEPROM	\$2.52
MC9S08LG32	32 KB	2 KB			16	2	√	√	√	2 + 6-ch.	ICS		80, 64, 48				√		√	S08 LCD MCU with up to 5V operating range	\$1.70
MC9S08LG16	16 KB	2 KB			12	2	√	√	√	2 + 6-ch.	ICS		64, 48				√		√	S08 LCD MCU with up to 5V operating range	\$1.56
MC9S08MP16	16 KB	1KB			13	1	1	1	3	6-ch. + 2-ch. FlexTimer, MTIM	ICS		32/48		28		√		√	Programmable gain amplifier (PGA), Programmable delay block (PDB), CRC engine. Targets BLDC motor control	\$1.10
MC9S08MP12	12 KB	512B			8	1	1		3	6-ch. + 2-ch. FlexTimer, MTIM	ICS				28		√		√	Programmable delay block (PDB), CRC engine. Targets BLDC motor control	\$1.06
MC9S08RD60	60 KB	2 KB				√				2-ch.	OSC				28	28	√		√	Remote control, carrier modulator timer	\$4.40
MC9S08RD32	32 KB	2 KB				√				2-ch.	OSC				28	28	√		√	Remote control, carrier modulator timer	\$3.53
MC9S08RD16	16 KB	1 KB				√				2-ch.	OSC				28	28	√		√	Remote control, carrier modulator timer	\$2.79
MC9S08RD8	8 KB	1 KB				√				2-ch.	OSC				28	28	√		√	Remote control, carrier modulator timer	\$1.97
MC9S08RE16	16 KB	1 KB				√			√	2-ch.	OSC	48	44, 32				√		√	Remote control, carrier modulator timer	\$2.90
MC9S08RE8	8 KB	1 KB				√			√	2-ch.	OSC		44, 32				√		√	Remote control, carrier modulator timer	\$2.04
MC9S08RG60	60 KB	2 KB				√	√		√	2-ch.	OSC		44, 32				√		√	Remote control, carrier modulator timer	\$4.57
MC9S08RG32	32 KB	2 KB				√	√		√	2-ch.	OSC		44, 32				√		√	Remote control, carrier modulator timer	\$3.68
MC9S08SF4	4 KB	128B		8/6				1	4-ch	2 x 2-ch. PWT, 1-ch. + 6/4-ch. TPM	ICS			20/16			√		√	Timer, ADC, fault detect and shut down (FDS).Targets simple motor control	\$0.76