

MOTOROLA

Microcontroller Development Tool Configuration and Order Information

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Development tool information for:

8-Bit	68HC05, 68HC08, and 68HC11
16-Bit	68HC12 and 68HC16
32-Bit	683XX and M•CORE

 **Digital DNA™**
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68HC05 Emulators, Cables, and Adapters (Sheet 1 of 2)

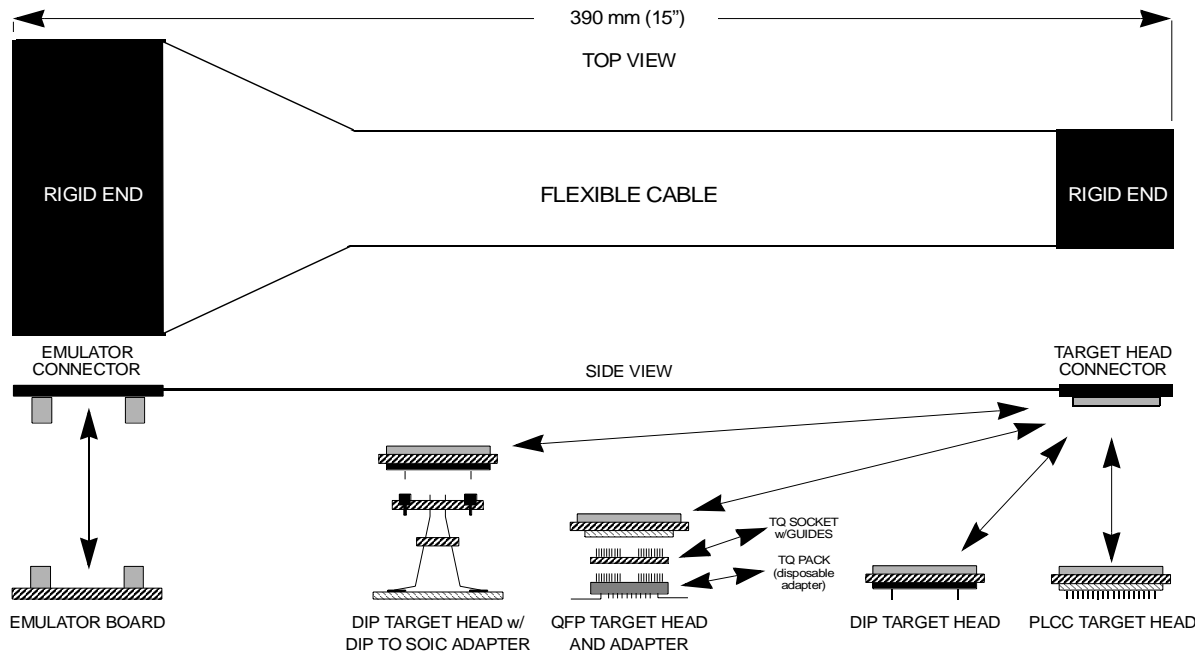
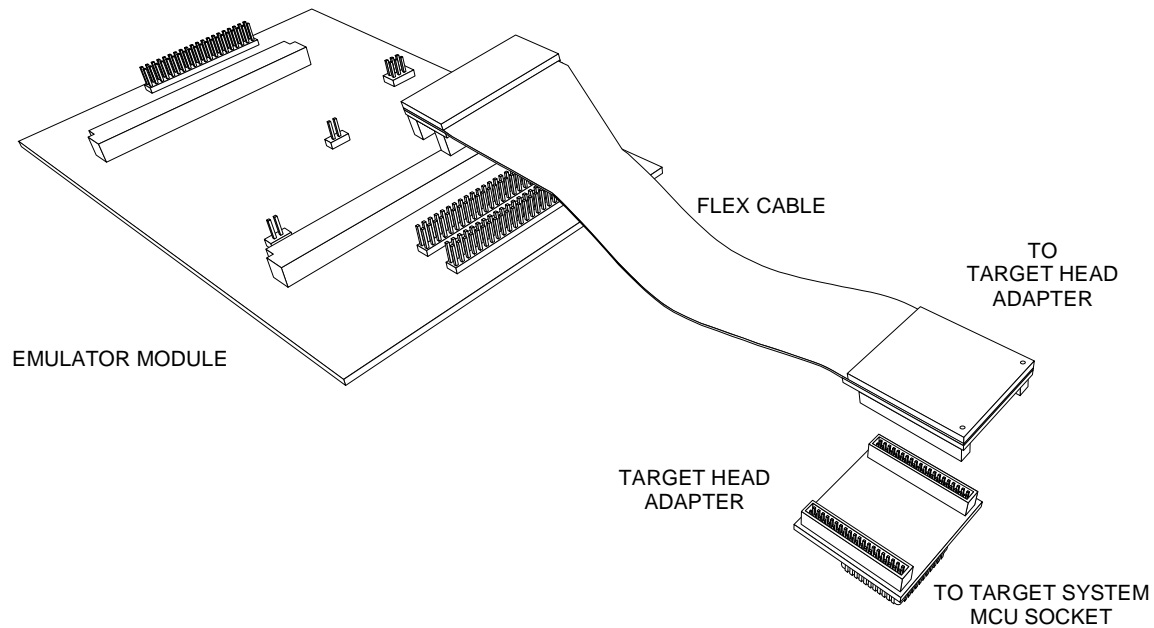
Device	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC05B6/B8/B16/B32 68HC705B16/B32	M68MMPFB0508 or M68MMDS0508	M68EM05B32	56 SDIP-B	M68CBL05B	M68TB05B32B56	
			64 QFP-FU	M68CBL05C	M68TC05B32FU64	M68TQP064SA1 ⁽¹⁾
			52 PLCC-FN	M68CBL05C	M68TC05B32FN52	M68TQS064SAG1 ⁽¹⁾
68HC05BD3/BD5/BD7 68HC705BD3/BD7	M68MMPFB0508 or M68MMDS0508	M68EM05BD7	40 DIP-P	M68CBL05B	M68TB05BD7P40	
			42 SDIP-B	M68CBL05B	M68TB05BD7B42	
68HC05BD9/BD16/BD24 68HC705BD9/BD24	M68MMPFB0508 or M68MMDS0508	X68EM05BD9	40 DIP-P	M68CBL05B	M68TB05BD9P40	
			42 SDIP-B	M68CBL05B	M68TB05BD9B42	
68HC05C4A/C8A/C12A 68HC705C8A	M68MMPFB0508 or M68MMDS0508	M68EM05C9A	40 DIP-P	M68CBL05B	M68TB05C9P40	
			44 PLCC-FN	M68CBL05C	M68TC05C4FN44	
			44 QFP-FB	M68CBL05C	M68TC05C9FB44	M68TQS044SAG1 ⁽¹⁾ M68TQP044SAMO1 ⁽¹⁾
			42 SDIP-B	M68CBL05B	M68TB05C9B42	
68HC05C9A 68HC705C9A	M68MMPFB0508 or M68MMDS0508	M68EM05C9A	40 DIP-P	M68CBL05B	M68TB05C9P40	
			44 PLCC-FN	M68CBL05C	M68TC05C9FN44	
			42 SDIP-B	M68CBL05B	M68TB05C9B42	
			44 QFP-FB	M68CBL05C	M68TC05C9FB44	M68TQS044SAG1 ⁽¹⁾ M68TQP044SAMO1 ⁽¹⁾
68HC05E6 68HC705E6	M68MMPFB0508 or M68MMDS0508	M68EM05E6	28 SOIC-DW	M68CBL05C	M68TC05E6P28	M68DIP28SOIC
			44 QFP-FB	M68CBL05C	M68TC05E6FB44	M68TQS044SAG1 ⁽¹⁾ M68TQP044SAMO1 ⁽¹⁾
68HC705F32	M68MMPFB0508 or M68MMDS0508	M68EM05F32	100 TQFP-PU	M68CBL05E	M68TE05F32PU100	
			80 TQFP-PU	M68CBL05E	M68TE05F32PU80	
68HC05H12 68HC705H12	M68MMPFB0508 or M68MMDS0508	X68EM05H12	52 PLCC-FN	M68CBL05C	X68TC05H12FN52	
68HC05J5A 68HC05LJ5 68HC705J5A	M68MMPFB0508 or M68MMDS0508	X68EML05J5A	16 DIP-P	M68CBL05A	M68TA05J5AP16	
			20 DIP-P	M68CBL05A	M68TA05J5AP20	
			16 SOIC-DW	M68CBL05A	M68TA05J5AP16	M68DIP16SOIC
			20 SOIC-DW	M68CBL05A	M68TA05J5AP20	M68DIP20SOIC
68HC705JB3	M68MMPFB0508 or M68MMDS0508	X68EM05JB3	20 DIP-P	M68CBL05A	M68TA05JB3P20	
			28 DIP-P	M68CBL05A	M68TA05JB3P28	
			28 SOIC-DW	M68CBL05A	M68TA05JB3P28	M68DIP28SOIC
68HC705JB4	M68MMPFB0508 or M68MMDS0508	X68EM05JB4	28 DIP-P	M68CBL05A	M68TA05JB4P28	
			28 SOIC-DW	M68CBL05A	M68TA05JB4P28	M68DIP28SOIC
68HC705JJ7 68HC05JJ6	M68MMPFB0508 or M68MMDS0508	X68EM05JP7	20 DIP-P	M68CBL05A	X68TA05JJ7P20	
			20 SOIC-DW	M68CBL05A	X68TA05JJ7P20	M68DIP20SOIC

1. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems. See [Figure 1: Modular Cable Structure](#) for details.

68HC05 Emulators, Cables, and Adapters (Sheet 2 of 2)

Device	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC705JP7 68HC05JP6	M68MMPFB0508 or M68MMDS0508	X68EM05JP7	28 DIP-P	M68CBL05A	X68TA05JP7P28	
			28 SOIC-DW	M68CBL05A	X68TA05JP7P28	M68DIP28SOIC
68HC05J1A 68HC705J1A	M68MMPFB0508 or M68MMDS0508	M68EM05J1A	20 DIP-P	M68CBL05A	M68TA05J2P20	
			20 SOIC-DW	M68CBL05A	M68TA05J2P20	M68DIP20SOIC
68HC705KJ1	M68MMPFB0508 or M68MMDS0508	M68EM05J1A	16 DIP-P	M68CBL05A	M68TA05KJ1P16	
			16 SOIC-DW	M68CBL05A	M68TA05KJ1P16	M68DIP16SOIC
68HC05L5/L16 68HC705L16	M68MMPFB0508 or M68MMDS0508	M68EML05L16	80 QFP-FU	M68CBL05E	M68TE05L16FU80	M68TQS080SBG1 ⁽¹⁾ M68TQP080SBMO1 ⁽¹⁾
68HC05L25 68HC705L26	M68MMPFB0508 or M68MMDS0508	M68EML05L26	52 LQFP-PB	M68CBL05C	M68TC05L26PB52	
68HC05P1A/P4A/P9A 68HC705P6A	M68MMPFB0508 or M68MMDS0508	X68EML05P6A	28 DIP-P	M68CBL05A	M68TA05P9P28	
			28 SOIC-DW	M68CBL05A	M68TA05P9P28	M68DIP28SOIC
68HC05P18 68HC805P18	M68MMPFB0508 or M68MMDS0508	X68EM05P18	28 DIP-P	M68CBL05A	M68TA05P9P28	
			28 SOIC-DW	M68CBL05A	M68TA05P9P28	M68DIP28SOIC
68HC05PL4 68HC705PL4	M68MMPFB0508 or M68MMDS0508	X68EML05PL4	20 DIP-P	M68CBL05A	M68TA05PL4P20	
			28 DIP-P	M68CBL05A	M68TA05PL4P28	
			20 SOIC-DW	M68CBL05A	M68TA05PL4P20	M68DIP20SOIC
			28 SOIC-DW	M68CBL05A	M68TA05PL4P28	M68DIP28SOIC
68HC805PV8	M68MMPFB0508 or M68MMDS0508	X68EM05PV8	28 SOIC-DW	M68CBL05A	X68TA05PV8P28	M68DIP28SOIC
68HC05RC18 68HC705RC16/RC17	M68MMPFB0508 or M68MMDS0508	X68EM05RC16	28 DIP-P	M68CBL05A	X68TA05RC16P28	
			28 SOIC-DW	M68CBL05A	X68TA05RC16P28	M68DIP28SOIC
68HC05SR3/SU3A 68HC705SR3	M68MMPFB0508 or M68MMDS0508	M68EM05SR3	40 DIP-P	M68CBL05B	M68TB05SR3P40	
			44 QFP-FB	M68CBL05C	M68TC05SR3FB44	M68TQS044SAG1 ⁽¹⁾ M68TQP044SAMO1 ⁽¹⁾
			42 SDIP-B	M68CBL05B	M68TB05SR3B42	
68HC05X4 68HC705X4	M68MMPFB0508 or M68MMDS0508	M68EM05X4	28 DIP-P	M68CBL05A	M68TA05X4P28	
			28 SOIC-DW	M68CBL05A	M68TA05X4P28	M68DIP28SOIC
68HC05X16/X32 68HC705X32	M68MMPFB0508 or M68MMDS0508	M68EML05X32	64 QFP-FU	M68CBL05E	M68TE05X32FU64	M68TQS064SAG1 ⁽¹⁾ M68TQP064SA1 ⁽¹⁾

1. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems. See [Figure 1: Modular Cable Structure](#) for details.



Note: Each QFP target head adapter includes one xxx pin TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable adapter (M68TQPxxxSy1 – 1.2 mm-lead length or M68TQPxxxSyMO1 – 1.6 mm-lead length.) One additional TQPACK must be purchased for each additional target system. The TQSOCKET is reusable, but can also be purchased separately. Refer to the surface mount adapter column in the tables entitled [68HC05 Emulators, Cables, and Adapters](#) and [68HC08 Emulators, Cables, and Adapters](#) for the TQSOCKET and TQPACK part numbers specific to the MCU in your target

Figure 1: Modular Cable Structure

68HC05 Programmers

Device	Packages Supported	Programming Adapter	Programmer Board
68HC705B16 68HC705B32	52 PLCC-FN 56 SDIP-B	NA	M68ICS05B Serial Programmer/In-Circuit Simulator
68HC705BD3 68HC705BD7	40 DIP-P 42 SDIP-B	M68UPA05BD3040 M68UPA05BD3B42	M68HC705UPGMR
68HC705C8A 68HC705C9A	40 DIP-P/S 44 PLCC-FN/FS	NA	M68ICS05C Serial Programmer/In-Circuit Simulator
68HC705E6	44 QFP-FB 28 SOIC-DW	NA	M68HC705E6PGMR
68HC705F32	100 TQFP	NA	X68HC705F32PGMR
68HC705H12	52 PLCC-FN	NA	X68HC705H12PGMR
68HC705KJ1 68HC705J1A	16 and 20 DIP-P 16 and 20 SOIC-DW	NA	M68ICS05KJ Serial Programmer/In-Circuit Simulator
68HC705J5A	16 DIP-P 20 DIP-P 20 SOIC-DW	M68UPA05J5AP16 M68UPA05J5AP20 M68UPA05J5ADW20	M68HC705UPGMR
68HC705JB3	20 DIP-P 28 DIP-P 28 SOIC-DW	M68UPA05JB3P20 M68UPA05JB3P28 M68UPA05JB3DW28	M68HC705UPGMR
68HC705JB4	28 DIP-P 28 SOIC-DW	M68UPA05JB4P28 M68UPA05JB4DW28	M68HC705UPGMR
68HC705JJ7	20 DIP-P 20 SOIC-DW	NA	M68ICS05JP Serial Programmer/In-Circuit Simulator
68HC705JP7	28 DIP-P 28 SOIC-DW	NA	M68ICS05JP Serial Programmer/In-Circuit Simulator
68HC705L16	80 QFP-FU/FZ	NA	KITPGMR05L16
68HC705P6A	28 DIP-P 28 SOIC-DW	NA	M68ICS05P Serial Programmer/In-Circuit Simulator
68HC805P18	28 DIP-P/S	NA	X68HC805P18PGMR
68HC705PL4	20 DIP-P 28 DIP-P 20 SOIC-DW 28 SOIC-DW	M68UPA05PL4P20 M68UPA05PL4P28 M68UPA05PL4DW20 M68UPA05PL4DW28	M68HC705UPGMR or M68HC705UGANG
68HC805PV8	28 SOIC-DW	NA	X68HC805PV8PGMR
68HC705SR3	40 DIP-P 44 QFP-FB	M68UPA05SR3P40 M68UPA05SR3FB44	M68HC705UPGMR
68HC705X4	28 DIP-P/S 28 SOIC-DW	NA	M68HC705X4PGMR
68HC705X32	64 QFP-FU 68 PLCC-FN	NA	M68HC705X32PGMR

68HC08 Development Kits (Sheet 1 of 2)

Device Supported	Part Number	In-Circuit Simulator/ Programmer (Board)	MMEVS Platform Board	MMDS Station Module	Emulation Module	Flex Cable	SMT & DIP Target Head Adapter	DIP Target Cable	Serial Cable	Integrated Development Environment	CD ROM	User Manuals	Power Supply	Silicon Samples
68HC908AB32	M68ICS08AB	X							X	X	X	X	X	X
	KITMMEVS08AB32	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08AB32	X		X	X	X	X	X	X	X	X	X	X	X
68HC908GP32	M68ICS08GP	X						X	X	X	X	X	X	X
	KITMMEVS08GP	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08GP	X		X	X	X	X	X	X	X	X	X	X	X
68HC908GR8 68HC908GR4	M68ICS08GR	X						X	X	X	X	X	X	X
	KITMMEVS08GR ⁽¹⁾	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08GR ⁽¹⁾	X		X	X	X	X	X	X	X	X	X	X	X
68HC908JB8	M68ICS08JB	X						X	X	X	X	X	X	X
	KITMMEVS08JB8	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08JB8	X		X	X	X	X	X	X	X	X	X	X	X
68HC908JL3 68HC908JK3 68HC908JK1	M68ICS08JLJK	X						X	X	X	X	X	X	X
	KITMMEVS08JL	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08JL	X		X	X	X	X	X	X	X	X	X	X	X
68HC908KX8 68HC908KX2	M68ICS08KX	X						X	X	X	X	X	X	X
	KITMMEVS08KX	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08KX	X		X	X	X	X	X	X	X	X	X	X	X
68HC908MR8	M68ICS08MR	X						X	X	X	X	X	X	X
	KITMMEVS08MR8 ⁽¹⁾	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08MR8 ⁽¹⁾	X		X	X	X	X	X	X	X	X	X	X	X
68HC908MR32 68HC908MR16	M68ICS08MR	X						X	X	X	X	X	X	X
	KITMMEVS08MR32	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08MR32	X		X	X	X	X	X	X	X	X	X	X	X

1. New development tool product to be introduced.

68HC08 Development Kits

68HC08 Development Kits (Sheet 2 of 2)

Device Supported	Part Number	In-Circuit Simulator/ Programmer (Board)	MMEVS Platform Board	MMDS Station Module	Emulation Module	Flex Cable	SMT & DIP Target Head Adapter	DIP Target Cable	Serial Cable	Integrated Development Environment	CD ROM	User Manuals	Power Supply	Silicon Samples
68HC908RK2	M68ICS08RK2	X						X	X	X	X	X	X	X
	KITMMEVS08RK2 ⁽¹⁾	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08RK2 ⁽¹⁾	X		X	X	X	X	X	X	X	X	X	X	X
68HC908SR12	M68ICS08SR	X						X	X	X	X	X	X	X
	KITMMEVS08SR12	X	X		X	X	X	X	X	X	X	X	X	X
	KITMMDS08SR12	X		X	X	X	X	X	X	X	X	X	X	X

1. New development tool product to be introduced.

68HC08 Emulators, Cables, and Adapters (Sheet 1 of 2)

Device	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC908AB32 68HC08AB16A	M68MMPFB0508 or M68MMDS0508	M68EML08AB32	64 QFP-FU	M68CBL05C	M68TC08AB32FU64	M68TQS064SAG1 ⁽²⁾ M68TQP064SA1 ⁽²⁾
68HC08AS20/32/60 68HC908AS32/48/60	M68MMPFB0508 or M68MMDS0508	M68EM08AS60	52 PLCC-FN	M68CBL05C	X68TC08AX48FN52	
			64 QFP-FU	M68CBL05C	X68TC08AX48FU64	M68TQS064SAG1 ⁽²⁾ M68TQP064SA1 ⁽²⁾
68HC08AZ32/60 68HC908AZ60 68HC908AZ60A 68HC908AZ32A	M68MMPFB0508 or M68MMDS0508	M68EM08AZ60	52 PLCC-FN	M68CBL05C	X68TC08AX48FN52	
			64 QFP-FU	M68CBL05C	X68TC08AX48FU64	M68TQS064SAG1 ⁽²⁾ M68TQP064SA1 ⁽²⁾
68HC908BD48	M68MMPFB0508 or M68MMDS0508	M68EM08BD48	42 SDIP-B	M68CBL05B	M68TB08BD48B42	
			44 QFP-FB	M68CBL05C	M68TC08BD48FB44	M68TQS044SAG1 ⁽²⁾ M68TQP044SAMO1 ⁽²⁾
			28 DIP-P	M68CBL05B	M68TB08BD48P28	
68HC908GP32 68HC08GP32	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	40 DIP-P	M68CBL05B	M68TB08GP32P40	
			42 SDIP-B	M68CBL05B	M68TB08GP32B42	
			44 QFP-FB	M68CBL05C	M68TC08GP32FB44	M68TQS044SAG1 ⁽²⁾ M68TQP044SAMO1 ⁽²⁾
68HC908GR8 68HC908GR4	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	28 DIP-P	M68CBL05C	M68TC08GR8P28	
			32 QFP-FA	M68CBL05C	M68TC08GR8FA32	M68TQS032SAG1 ⁽²⁾ M68TQP032SA1 ⁽²⁾
68HC908JB8	M68MMPFB0508 or M68MMDS0508	M68EM08JB8	20 DIP-P	M68CBL05C	M68TC08JB8P20	
			20 SOIC-DW	M68CBL05C	M68TC08JB8P20	M68DIP20SOIC
			28 SOIC-DW	M68CBL05C	M68TC08JB8P28	M68DIP28SOIC
			42 SDIP-B	M68CBL05B	M68TB08JB8B42	
			44 QFP-FB	M68CBL05C	M68TC08JB8FB44	M68TQS044SAG1 ⁽²⁾ M68TQP044SAMO1 ⁽²⁾
68HC908JL3 68HC08JL3	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	28 DIP-P	M68CBL05C	M68TC08JL3P28	
			28 SOIC-DW	M68CBL05C	M68TC08JL3P28	M68DIP28SOIC
			48 QFP-FA	M68CBL05C	M68TC08JL3FA48	M68TQS048SDG1 ⁽²⁾ M68TQAP048SD1 ⁽²⁾
68HC908JK3 68HC908JK1	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	20 DIP-P	M68CBL05C	M68TC08JK3P20	
			20 SOIC-DW	M68CBL05C	M68TC08JK3P20	M68DIP20SOIC

1. New development tool product to be introduced.

2. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems. See [Figure 1: Modular Cable Structure](#) for details.

68HC08 Emulators, Cables, and Adapters (Sheet 2 of 2)

Device	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC908KX8 68HC908KX2	M68MMPFB0508 or M68MMDS0508	M68EML08KX8	16 DIP-P	M68CBL05A	M68TA05KX6P16	
			16 SOIC-DW	M68CBL05A	M68TA05KX6P16	M68DIP16SOIC
68HC908LD64	M68MMPFB0805 or M68MMDS0508	X68EML08LD64	64 QFP-FU	M68CBL05C	M68TC08LD64FU64	M68TQS064SAG1 ⁽²⁾ M68TQP064SA1 ⁽²⁾
68HC908MR8 68HC08MR4	M68MMPFB0805 or M68MMDS0508	M68EM08MR8 ⁽¹⁾	32 QFP-FA	M68CBL05C	MC68TC08MR8FA32	M68TQS032SAG1 ⁽²⁾ M68TQP032SA1 ⁽²⁾
68HC908MR32 68HC908MR24 68HC908MR16	M68MMPFB0508 or M68MMDS0508	M68EM08MR32	64 QFP-FU	M68CBL05C	M68TC08MR24FU64	M68TQS064SAG1 ⁽²⁾ M68TQP064SAMO1 ⁽²⁾
			56-SDIP-B	M68CBL05C	M68TC08MR24B56	
68HC908RK2	M68MMPFB0508 or M68MMDS0508	M68EML08RK2 ⁽¹⁾	20 DIP-P	M68CBL05A	M68TA05RK2P20 ⁽¹⁾	
			20 SOIC-DW	M68CBL05A	M68TA05RK2P20 ⁽¹⁾	M68DIP20SOIC
			32 QFP-FA	M68CBL05A	M68TA05RK2FA32	M68TQS032SAG1 ⁽²⁾ M68TQP032SA1 ⁽²⁾
68HC908SR12	M68MMPFB0508 or M68MMDS0508	M68EML08SR12	42 SDIP-B	M68CBL05B	M68TB08SR12B42	
			48 QFP-FA	M68CBL05C	M68TC08SR12FA48	M68TQS048SDG1 ⁽²⁾ M68TQP048SD1 ⁽²⁾

1. New development tool product to be introduced.

2. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems. See [Figure 1: Modular Cable Structure](#) for details.

68HC08 Programmings

Device	Packages Supported	Programming Adapter	Programmer Board
68HC908AB32	64 QFP	NA	M68ICS08AB Serial Programmer/In-Circuit Simulator
68HC908AB32	64 QFP	M68UPA08AB32FU64	M68HC705UPGMR or M68HC705UGANG Parallel programmer
68HC908AZ60 68HC908AS60	64 QFP-FU 52 PLCC-FN	M68PA08AT60FNFU	M68SPGMR08
68HC908BD48	44 QFB-FB 42 SDIP-B 28 DIP-P	M68UPA08BD48FB44 M68UPA08BD48B42 M68UPA08BD48P28	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
68HC908GP32	40 DIP-P 44 QFP-FB	NA	M68ICS08GP Serial Programmer/In-Circuit Simulator: recommended for DIP and QFP programming
68HC908GP32	40 DIP-P 42 SDIP-B 44 QFP-FB	M68UPA08GP32P40 M68UPA08GP32B42 M68UPA08GP32FB44	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
68HC908GR8 68HC908GR4	28 DIP-P 32 QFP-FA	NA	M68ICS08GR Serial Programmer/In-Circuit Simulator
68HC908JB8	20 DIP-P 20 SOIC-DW 28 SOIC-DW 42 SDIP-B 44 QFP-FB	NA	M68ICS08JB Serial Programmer/In-Circuit Simulator
68HC908JB8	20 DIP-P 20 SOIC-DW 28 SOIC-DW 42 SDIP-B 44 QFP-FB	M68UPA08JB8P20 M68UPA08JB8DW20 M68UPA08JB8DW28 M68UPA08JB8B42 M68UPA08JB8FB44	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
68HC908JK3/JK1	20 DIP-P 20 SOIC-DW	NA	M68ICS08JLJK Serial Programmer/In-Circuit Simulator
68HC908JK3/JK1	20 DIP-P 20 SOIC-DW	M68UPA08JK3P20 M68UPA08JK3DW20	M68HC705UPGMR or M68HC705UGANG Parallel programmer
68HC908JL3	28 DIP-P 28 SOIC-DW	NA	M68ICS08JLJK Serial Programmer/In-Circuit Simulator
68HC908JL3	28 DIP-P 28 SOIC-DW	M68UPA08JL3P28 M68UPA08JL3DW28	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
68HC908KX8 68HC908KX2	16 DIP-P 16 SOIC-DW	NA	M68ICS08KX
68HC908LD64	64 QFP-FU	M68UPA08LD64FU64 M68PA08LD64FU64 NA	M68HC705UPGMR or M68HC705UGANG Parallel Programmer M68SPGMR08 Serial Programmer with NO In-Circuit Simulator M68PGMR08DDC FLASH Programming through DDC Interface
68HC908MR32 68HC908MR16 68HC908MR8	56 SDIP-B 64 QFP-FU 32 QFP-FA	NA	M68ICS08MR Serial Programmer/In-Circuit Simulator
68HC908RK2	20 SOIC-DW	NA	M68ICS08RK2 Serial Programmer/In-Circuit Simulator
68HC908SR12	42 SDIP-B 48 QFP-FA	NA	M68ICS08SR Serial Programmer/In-Circuit Simulator
68HC908SR12	42 SDIP-B 48 QFP-FA	M68UPA08SR12B42 M68UPA08SR12FA48	M68HC705UPGMR or M68HC705UGANG Parallel programmer

68HC11 Development Kits

Device Supported	Part Number	PGMR	PGMR Adapter	EVS Platform Board	MMDS Station Module	Emulation Module	Flex Cable	SMT & DIP Target Head Adapter	Serial Cable	Integrated Development Environment	CD ROM	User Manuals	Power Supply	Silicon Samples
68HC711D3 68HC11D3 68HC11D0	KITMMEVS11D3	X	X	X		X	X	X	X	X	X	X	X	X
	KITMMDS11D3	X	X		X	X	X	X	X	X	X	X	X	X
68HC711E20 68HC711E9 68HC11E20 68HC11E9 68HC11E1 68HC11E0	KITMMEVS11E20	X	X	X		X	X	X	X	X	X	X	X	X
	KITMMDS11E20	X	X		X	X	X	X	X	X	X	X	X	X
68HC11F1	KITMMEVS11F1	X	X	X		X	X	X	X	X	X	X	X	X
	KITMMDS11F1	X	X		X	X	X	X	X	X	X	X	X	X

68HC11 Evaluation Board

Devices	Board
68HC11A8 68HC11E9 68HC711E9 68HC811E2	M68HC11EVBU2

68HC11 Emulators, Cables, and Adapters

Device	Platform	Emulation Module (EM)	Package	Flex Cable	Target Head
68HC11D3	M68MMDS11 or M68HC11PFB	M68EM11D3	40-pin plastic DIP (P)	M68CBL11C	M68TC11D3P40
		M68EM11D3	44-lead PLCC (FN)	M68CBL11C	M68TC11D3FN44
		M68EM11D3	44-lead QFP (FB)	M68CBL11C	M68TC11D3FB44
68HC711D3	M68MMDS11 or M68HC11PFB	M68EM11D3	40-pin plastic DIP (P)	M68CBL11C	M68TC11D3P40
		M68EM11D3	44-lead PLCC (FN)	M68CBL11C	M68TC11D3FN44
68HC11E9 68HC711E9	M68MMDS11 or M68HC11PFB	M68EM11E20	52-lead PLCC (FN)	M68CBL11C	M68TC11E20FN52
		M68EM11E20	52-lead QFP (PB)	M68CBL11C	M68TC11E20PB52
		M68EM11E20	64-lead QFP (FU)	M68CBL11C	M68TC11E20FU64
68HC11E20 68HC711E20	M68MMDS11 or M68HC11PFB	M68EM11E20	52-lead PLCC (FN)	M68CBL11C	M68TC11E20FN52
		M68EM11E20	64-lead PLCC (FU)	M68CBL11C	M68TC11E20FU64
68HC811E2	M68MMDS11 or M68HC11PFB	M68EM11E20	48-pin plastic DIP (P)	M68CBL11B	M68TB11E20P48
		M68EM11E20	52-lead PLCC (FN)	M68CBL11B	M68TC11E20FN52
68HC11F1	M68MMDS11 or M68HC11PFB	M68EM11F1	68-lead PLCC (FN)	M68CBL11C	M68TC11F1FN68
		M68EM11F1	80-lead TQFP (PU)	M68CBL11C	M68TC11F1PU80
68HC11G5 68HC11G7	M68MMDS11 or M68HC11PFB	M68EM11G5	84-lead PLCC (FN)	M68CBL11D	M68TD11G5FN84
68HC11K4 68HC711K4	M68MMDS11 or M68HC11PFB	M68EM11K4	80-lead TQFP (FU)	M68CBL11E	M68TE11K4FU80
		M68EM11K4	84-lead PLCC (FN)	M68CBL11D	M68TD11K4FN84
68HC11KS2 68HC711KS2	M68MMDS11 or M68HC11PFB	M68EM11KA4	68-lead PLCC (FN)	M68CBL11C	M68TC11KA4FN68
68HC11L6 68HC711L6	M68MMDS11 or M68HC11PFB	M68EM11L6	64-lead QFP (FU)	M68CBL11C	M68TC11L6FU64
		M68EM11L6	68-lead PLCC (FN)	M68CBL11C	M68TC11L6FN68
68HC11P2 68HC711P2	M68MMDS11 or M68HC11PFB	M68EM11P2	84-lead PLCC (FN)	M68CBL11D	M68TD11K4FN84

68HC11 Programmers

Device	Platform	Package	Programmer Adapter
68HC711D3	M68SPGMR11	40-pin plastic DIP (P)	M68PA11D3P40
		44-pin QFP (FB)	M68PA11D3FB44
		44-lead PLCC (FN)	M68PA11D3FN44
68HC711E9 68HC11E9/E1	M68SPGMR11	52-lead PLCC (FN)	M68PA11E20FN52
		52-lead QFP (PB)	M68PA11E20PB52
		64-lead QFP (FU)	M68PA11E20FU64
68HC711E20 68HC11E20	M68SPGMR11	52-lead PLCC (FN)	M68PA11E20FN52
		64-lead PLCC (FN)	M68PA11E20FU64
68HC811E2	M68SPGMR11	48-pin plastic DIP (P)	M68PA11A8P48
		52-lead PLCC (FN)	M68PA11E20FN52
68HC11F1	M68SPGMR11	68-lead PLCC (FN)	M68PA11F1FN68
		80-lead TQFP (PU)	M68PA11F1PU80
68HC11G5 68HC11G7	M68SPGMR11	84-lead PLCC (FN)	M68PA11G5FN84
68HC711K4 68HC11K4/K1	M68SPGMR11	80-lead TQFP (FU)	M68PA11K4FU80
		84-lead PLCC (FN)	M68PA11K4FN84
68HC711KA2 68HC11KA2	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711KA4 68HC11KA4	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711KS2 68HC11KS2	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711L6 68HC11L6	M68SPGMR11	64-lead QFP (FU)	M68PA11L6FU64
		68-lead PLCC (FN)	M68PA11L6FN68
68HC711P2 68HC11P2	M68SPGMR11	84-lead PLCC (FN)	M68PA11K4FN84

68HC12 Family

Device Supported	Part Number	Evaluation Board	Serial Debug Interface Cable (BDM Cable)	ROM Monitor	Software	User Manual	Comments
68HC812A4	M68HC12A4EVB	X		X	X	X	Evaluation board for HC812A4
	M68SDIL12		X		X	X	Serial cable to connect to HC12 background debug mode (BDM) debug connector
68HC912B32	M68EVB912B32	X		X	X	X	Evaluation board for HC912B32
	M68SDIL12		X		X	X	Serial cable to connect to HC12 BDM debug connector
68HC912BC32	M68EVB912BC32	X		X		X	Evaluation board for HC912BC32
	M68SDIL12		X		X	X	Serial cable to connect to HC12 BDM debug connector
68HC912D60	M68KIT912D60	X	X		X	X	Kit with HC912D60 evaluation board (EVB) and serial debug interface (SDI) cable
	M68EVB912D60	X				X	Evaluation board for HC912D60
	M68SDIL12		X		X	X	Serial cable to connect to HC12 BDM debug connector
68HC912DG128	M68KIT912DG128	X	X		X	X	Kit with HC912DG128 EVB and SDI
	M68EVB912DG128	X				X	Evaluation board for HC912DG128
	M68SDIL12		X		X	X	Serial cable to connect to HC12 BDM debug connector

68HC16 and 68300 MEVB Families

Device	Platform	Package	Microcontroller Personality Board	BDM Cable ⁽¹⁾	Software
68HC916X1	M68MPFB1632	120 PQFP (FH)	M68MPB916X1C	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68HC16Y1	M68MPFB1632	160 PQFP (FT)	M68MPB16Y1B	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68HC16Z1	M68MPFB1632	132 PQFP (FC)	M68MPB16Z1B	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68331	M68MPFB1632	132 PQFP (FC)	M68MPB331B	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68332A	M68MPFB1632	132 PQFP (FC)	M68MPB332AB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68332G	M68MPFB1632	132 PQFP (FC)	M68MPB332GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68336	M68MPFB1632	160 PQFP (FT)	M68MPB336GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68376	M68MPFB1632	160 PQFP (FT)	M68MPB376GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB

1. ICD = Parallel cable to connect to the HC16 or 6833X DBM debut connector
SDI = Serial cable to connect to the HC16 or 6833X BDM connector

M68300 Business Card Computer

Device	Platform	BCC
68331	M68300PFB	M68BCC331
68332A	M68300PFB	M68BCC332A
68332G	M68300PFB	M68BCC332G

M•CORE Family

Device Supported	Part Number	Description	Serial Cable	CD ROM	User Manuals	Power Supply	Silicon Samples
MMC2001	MMCEVB1200PV	Low-cost evaluation board	X	X	X	X	X
	MMCCMB1200	MMCEVB1200PV with larger, faster SRAMs and MAPI ring for connection to other boards	X	X	X	X	X
	KITFPGAMMC1200	Kit with MMCCMB1200 and Altera FPGA board that connects with MAPI ring. Includes Altera MAX + plus II software	X	X	X	X	X
	KITEVSMMC1200	Kit with MMCCMB1200 and platform board with large on-board memories that connect with MAPI ring.	X	X	X	X	X
MMC2107	MMCEVB2107	Low-cost evaluation board	X	X	X	X	X
	MMCMCB2107	Mid-range evaluation board	X	X	X	X	X
	KITEVSMMC2107	Mid-range evaluation board plus platform board	X	X	X	X	X
All M•CORE	MMC14EBDI02	Serial debugger interface to 6833X BDM or M•CORE OnCE debug connector	X		X	X	
	MMCMAPIXT400	400-pin MAPI extender board to add 3/8 inch (9.5 mm) of vertical space					
	MMCLAB01	Logic analyzer board to bring MAPI 400 signals to 100-mil headers					

Microcontroller Third Party Development Tool Partners (Sheet 1 of 5)

Company Name	HC05	HC08	HC11	HC12	HC16	68300	MPC500	M-CORE	World Wide Web URL	Email Address
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Adapters

Emulation Solutions	Y	Y	Y	Y	Y	Y	Y	Y	www.adapters.com	sales@adapters.com
Logical Systems Corp.		Y	Y						www.logicalsyst.com	info@logicalsyst.com

Assemblers

Avocet Systems	Y	Y	Y		Y	Y			www.avocetsystems.com/2500ad/	sales@avocetsystems.com
Engineers Collaborative Inc.,The (TECI)	Y		Y						www.tec-l.com	sales@tec-l.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y		Y	www.metrowerks.com	info@metrowerks.com
IAR Systems	Y		Y	Y	Y				www.iar.se	info@iar.se
Object Software, Inc.						Y	Y	Y	www.objsw.com	info@objsw.com
P&E Microcomputer Systems, Inc.	Y	Y	Y	Y	Y	Y			www.pemicro.com	pemicro@pemicro.com
TASKING, Inc.						Y		Y	www.tasking.com	sales@tasking-us.com
Virtual Micro Design	Y	Y	Y						www.vmdesign.com	info@vmdesign.com

BDM Support Tools

Archimedes Software, Inc.					Y	Y			www.archimedesinc.com	customer-service@archimedesinc.com
Axiom Mfg.			Y						www.axman.com	Gary@ axman.com
Cosmic Software			Y	Y	Y				www.cosmic-software.com	info@cosmic-us.com
Wind River Systems, Inc.					Y	Y	Y	Y	www.wrs.com	inquiries@windriver.com
Hitex Development Tools			Y		Y				www.hitex.com	info@hitex.com
Metrowerks Corporation			Y	Y	Y	Y	Y	Y	www.metrowerks.com	info@metrowerks.com
Agilent Technologies, Inc.					Y	Y	Y	Y	www.agilent.com	www.agilent.com
Avocet Systems						Y	Y	Y	www.avocetsystems.com	sales@avocetsystems.com
IAR Systems			Y						www.iar.se	info@iar.se
iSYSTEM			Y	Y	Y			Y	www.isystem.com	emulators@isystem.com
Kevin W Ross			Y						www.nwlink.com/~kevinro/products.html	kevinro@nwlink.com
LAUTERBACH			Y	Y	Y			Y	www.lauterbach.com	info@lauterbach.com
Macraigor Systems LLC					Y	Y			www.macraigor.com	sales@macraigor.com
Microtek International Inc.									www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Noral Micrologics			Y		Y				www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm
Object Software Inc					Y	Y			www.objsw.com	info@objsw.com
P&E Microcomputers, Inc.			Y	Y	Y				www.pemicro.com	pemicro@pemicro.com
Sid Price's Software Tools			Y						www.softtools.com/tools/	sales@softtools.com
TASKING, Inc.					Y				www.tasking.com	sales@tasking-us.com

Microcontroller Third Party Development Tool Partners (Sheet 2 of 5)

Company Name	HC05	HC08	HC11	HC12	HC16	68300	MPC500	M-CORE	World Wide Web URL	Email Address
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Code Coverage Tools

Ashling Microsystems	Y	Y	Y	Y					www.ashling.com	www.ashling.com/motocontact.html
Cosmic Software	Y	Y	Y	Y	Y	Y			www.cosmic-software.com	info@cosmic-us.com
Wind River Systems, Inc.						Y	Y	Y	www.wrs.com	inquiries@windriver.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Hitex Development Tools	Y	Y	Y	Y		Y			www.hitex.com	info@hitex.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y	Y	Y	www.metrowerks.com	info@metrowerks.com
iSYSTEM	Y	Y	Y		Y	Y			www.isystem.com	emulators@isystem.com
TASKING, Inc.						Y		Y	www.tasking.com	sales@tasking-us.com

Compilers

Archimedes Software, Inc.	Y	Y	Y	Y	Y	Y			www.archimedesinc.com	customer-service@archimedesinc.com
Avocet Systems			Y			Y			www.avocetsystems.com/	sales@avocetsystems.com
Byte Craft Limited	Y	Y							www.bytecraft.com/c6805.html	info@bytecraft.com
ImageCraft		Y	Y	Y	Y				www.imagecraft.com/software	info@imagecraft.com
TASKING, Inc.						Y		Y	www.tasking.com	sales@tasking-us.com
AppForge Software, LLC								Y	www.appforge.com	info@appforge.com
Cosmic Software	Y	Y	Y	Y	Y	Y			www.cosmic-software.com	info@cosmic-us.com
Wind River Systems, Inc.						Y	Y	Y	www.wrs.com	inquiries@windriver.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y	Y	Y	www.metrowerks.com	info@metrowerks.com
IAR Systems			Y	Y	Y				www.iar.se	info@iar.se
Irvine Compiler Corporation							Y		www.irvine.com/ppc.html	info@irvine.com
MCT Paul & Scherer GmbH						Y			mct.net	sales@mct.de
Mekatronix, Inc			Y						www.mekatronix.com/	customer@mekatronix.com
Metrowerks						Y	Y	Y	www.metrowerks.com/embedded/68k/ Detailed_Features/	sales@metrowerks.com
Object Software Inc						Y	Y	Y	www.objsw.com	info@objsw.com

Debuggers

Ashling Microsystems	Y	Y	Y	Y	Y	Y			www.ashling.com/advice	www.ashling.com/advice/motocontact.html
Avocet Systems / 2500AD Software	Y		Y		Y				www.avocetsystems.com/2500ad/	sales@avocetsystems.com
Cosmic Software	Y	Y	Y	Y	Y	Y			www.cosmic-software.com	info@cosmic-us.com
Wind River Systems, Inc.						Y	Y	Y	www.wrs.com	inquiries@windriver.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y	Y	Y	www.metrowerks.com	info@metrowerks.com
Avocet Systems						Y	Y		www.avocetsystems.com	sales@avocetsystems.com
IAR Systems			Y	Y	Y				www.iar.se	info@iar.se

Microcontroller Third Party Development Tool Partners (Sheet 3 of 5)

Company Name	HC05	HC08	HC11	HC12	HC16	68300	MPC500	M-CORE	World Wide Web URL	Email Address
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Debuggers (Continued)

iSYSTEM	Y	Y	Y	Y	Y	Y		Y	www.isystem.com	emulators@isystem.com
LAUTERBACH	Y	Y	Y	Y	Y	Y	Y	Y	www.lauterbach.com	info@lauterbach.com
MCT Paul & Scherer GmbH						Y			mct.net	sales@mct.de
Nohau				Y					www.nohau.com	sales@nohau.com
Noral Micrologics				Y		Y			www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm
Object Software Inc						Y	Y	Y	www.objsw.com	info@objsw.com
P&E Microcomputers, Inc.	Y		Y	Y	Y	Y			www.pemicro.com	pemicro@pemicro.com
Sid Price's Software Tools	Y		Y	Y					www.softtools.com/tools/	sales@softtools.com
TASKING, Inc.						Y		Y	www.tasking.com	sales@tasking-us.com
Virtual Micro Design	Y	Y	Y						www.vmdesign.com	info@vmdesign.com

Evaluation Boards

Avnet Design Services		Y							www.ads.avnet.com/evalkits.html	ads@avnet.com
Axiom Mfg.		Y	Y	Y				Y	www.axman.com	Gary@axman.com
emWare		Y						Y	www.emware.com/Motorola	sales@emware.com
Engineers Collaborative Inc.,The (TECI)	Y		Y						www.tec-l.com	sales@tec-l.com
ETAS Inc.							Y		www.etasinc.com	sales@etasinc.com
Intec Automation Inc.					Y		Y		www.sc555.com	info@sc555.com
Kevin W Ross		Y	Y						www.nwlink.com/~kevinro/products.html	kevinro@nwlink.com
MCT Paul & Scherer GmbH		Y				Y				sales@mct.de
Mekatronix, Inc		Y							www.mekatronix.com/	customer@mekatronix.com
Microtek International Inc.						Y			www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Noral Micrologics				Y		Y			www.noral.com/pages/bdmcfire.htm	www.noral.com/pages/moreinfo.htm
Oztechnics P/L	Y		Y						www.oztechnics.com.au	info@oztechnics.com.au
P&E Microcomputers, Inc.					Y	Y			www.pemicro.com	pemicro@pemicro.com

Fuzzy and Neuro Tools

Apronix, Inc.	Y	Y	Y		Y	Y			www.aptronix.com/fide	sales@aptronix.com
Inform Software Corp.	Y	Y	Y	Y	Y	Y	Y	Y	www.fuzzytech.com	hotline@inform-ac.com

Code Generation Tools

Aisys Inc	Y	Y							www.aisysinc.com	info@aisysinc.com
AppForge Software, LLC								Y	www.appforge.com	info@appforge.com
ECS, Inc.						Y	Y		www.go-ecs.com	info-mcu@go-ecs.com
ETAS Inc.				Y		Y	Y		www.etasinc.com	sales@etasinc.com

Microcontroller Third Party Development Tool Partners (Sheet 4 of 5)

Company Name	HC05	HC08	HC11	HC12	HC16	68300	MPC500	M-CORE	World Wide Web URL	Email Address
In-Circuit Emulators (ICE)										
Ashling Microsystems	Y	Y	Y	Y	Y	Y			www.ashling.com/advice	www.ashling.com/advice/motocontact.html
Avocet Systems / iSYSTEM USA	Y	Y	Y	Y	Y	Y			www.avocetsystems.com/isystem/	sales@avocetsystems.com
Wind River Systems, Inc.						Y	Y		www.wrs.com	inquiries@windriver.com
Engineers Collaborative Inc.,The (TECI)	Y		Y						www.tec-l.com	sales@tec-l.com
Hitex Development Tools	Y	Y	Y	Y		Y			www.hitex.com	info@hitex.com
Avocet Systems			Y		Y	Y	Y		www.avocetsystems.com	sales@avocetsystems.com
iSYSTEM	Y	Y	Y	Y		Y			www.isystem.com	emulators@isystem.com
LAUTERBACH	Y	Y	Y	Y	Y	Y	Y		www.lauterbach.com	info@lauterbach.com
MetaLink Corp.	Y		Y						www.metaice.com	sales@metaice.com
Microtek International Inc.						Y			www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Nohau			Y		Y	Y			www.nohau.com	sales@nohau.com
Noral Micrologics						Y			www.noral.com/pages/bdmcfire.htm	www.noral.com/pages/moreinfo.htm
Orion Instruments	Y		Y	Y	Y	Y			www.oritools.com	info@oritools.com

Logic Analyzers

Boulder Creek Engineering	Y	Y	Y	Y		Y			www.bcreek.com	sales@bcreek.com
Corelis						Y			www.Corelis.com	sales@corelis.com
dli digital logic instruments			Y	Y	Y	Y	Y	Y	www.dli.de	sales@dli.de
Agilent Technologies, Inc.			Y	Y		Y	Y	Y	www.agilent.com	www.agilent.com
iSYSTEM	Y	Y	Y	Y	Y	Y			www.isystem.com	emulators@isystem.com
Tektronix			Y	Y	Y	Y	Y	Y	www.tek.com/Measurement/logic_analyzers/	

Performance Analysis Tools

Ashling Microsystems	Y	Y	Y	Y					www.ashling.com	www.ashling.com/motocontact.html
Wind River Systems, Inc.						Y	Y	Y	www.wrs.com	inquiries@windriver.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Hitex Development Tools	Y	Y	Y	Y		Y			www.hitex.com	info@hitex.com
iSYSTEM	Y	Y	Y		Y	Y			www.isystem.com	emulators@isystem.com
Virtual Micro Design	Y	Y	Y						www.vmdesign.com	info@vmdesign.com

Programmers

BP Microsystems	Y	Y	Y	Y	Y				www.bpmicro.com/web/devices	info@bpmicro.com
Data I/O Corp.	Y	Y	Y		Y				www.dataio.com	webmaster@dataio.com
Engineers Collaborative Inc.,The(TECI)	Y		Y						www.tec-l.com	sales@tec-l.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y		Y	www.metrowerks.com	info@metrowerks.com
Mekatronix, Inc			Y						www.mekatronix.com	customer@mekatronix.com
Noral Micrologics				Y		Y			www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm

Microcontroller Third Party Development Tool Partners (Sheet 5 of 5)

Company Name	HC05	HC08	HC11	HC12	HC16	68300	MPC500	M-CORE	World Wide Web URL	Email Address
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Programmers (Continued)

P&E Microcomputer Systems, Inc.				Y	Y	Y			www.pemicro.com	pemicro@pemicro.com
Phyton, Inc.	Y			Y					www.phyton.com	info@phyton.com
SMS GmbH	Y	Y	Y	Y					www.sms-sprint.com	info@sms-sprint.com

Real-Time Operating Systems (RTOS)

Accelerated Technology Inc.			Y		Y	Y	Y	Y	www.atinucleus.com	info@atinucleus.com
AppForge Software, LLC						Y			www.appforge.com	info@appforge.com
Avocet Systems	Y	Y	Y	Y	Y	Y	Y	Y	www.avocetsystems.com/	sales@avocetsystems.com
CMX Company	Y	Y	Y	Y	Y	Y	Y		www.cmx.com	cmx@cmx.com
Embedded System Products, Inc.		Y	Y	Y	Y	Y	Y	Y	www.rtxc.com	sales@rtxc.com
Enea OSE Systems			Y			Y	Y		www.enea.com	info@enea.com
ETAS Inc.				Y		Y	Y		www.etasinc.com	sales@etasinc.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Metrowerks Corporation					Y	Y		Y	www.metrowerks.com	info@metrowerks.com
KADAK Products Ltd.						Y	Y		www.kadak.com	amxsales@kadak.com
Precise Software						Y	Y	Y	http://www.psti.com	info@psti.com
TASKING, Inc.						Y			www.tasking.com	sales@tasking-us.com
U S Software			Y		Y	Y	Y		www.ussw.com	sales@ussw.com

Simulation Tools

Cosmic Software	Y	Y	Y	Y	Y	Y			www.cosmic-software.com	info@cosmic-us.com
Wind River Systems, Inc.						Y		Y	www.wrs.com	inquiries@windriver.com
Green Hills Software						Y	Y	Y	www.ghs.com	sales@ghs.com
Metrowerks Corporation	Y	Y	Y	Y	Y	Y	Y	Y	www.metrowerks.com	info@metrowerks.com
Oztechnics P/L	Y		Y						www.oztechnics.com.au	info@oztechnics.com.au
P&E Microcomputer Systems, Inc.	Y	Y	Y	Y	Y				www.pemicro.com	pemicro@pemicro.com
TASKING, Inc.						Y		Y	www.tasking.com	sales@tasking-us.com
Virtual Micro Design	Y	Y	Y						www.vmdesign.com	info@vmdesign.com

Visit the Motorola MCU Third Party Development Tools web site for more detailed information at
http://www.mcu.motsps.com/dev_tools/3rd/index.html

— Definitions —

ADC — Analog-to-Digital Converter
BDM — Background Debug Mode
CAN — Controller Area Network
CDIP — Ceramic Dual In-Line Package
CLCC — Ceramic Leaded Chip Carrier
CMB — Microcontroller Memory Board
COP — Computer Operating Properly (Watchdog Timer)
CPU16 — 16-Bit Central Processor Unit (HC11 Compatible)
CPU32 — 32-Bit Central Processor Unit (68000 Compatible)
CTM — Configurable Timer Module (Various Hardware Options)
DIP — Dual In-line Package
DTMF — Dual-Tone Multi-Frequency
EBI — External Bus Interface
EM — Emulation Module
EVB — Evaluation Board
FPGA — Field Programmable Gate Array
GPT — General-Purpose Timer Module (4 IC, 5 OC, 2 PWM)
IC — Input Capture
I²C — Inter-Integrated Circuit
ICS — In-Circuit Simulator (Board)
IDE — Integrated Development Environment
i/o — Bidirectional Input and Output Port Pins
i — Input-Only Port Pins
IPB — I/O Peripheral Board
ISPI — Interval Serial Peripheral Interface
KBI — Keyboard Interrupt
LCD — Liquid Crystal Display
LTD — Limited Availability
LQFP — Low-Profile Quad Flat Pack
LVI — Low-Voltage Interrupt
LVR — Low-Voltage Reset
MC — Fully Qualified Production
MCCI — Multi-Channel Communication Interface (2 SCI, SPI)
MEVB — Modular Evaluation Board
MFT — Multi Function Timer
MMDS — Motorola Modular Development System
MMEVS — Motorola Modular Evaluation System


MPB — Microcontroller Personality Board
MUX — Multiplexed
o — Output-Only Port Pins
OC — Output Compare
PC — Pre-Qualification, Engineering Samples Only
PEEP — Personality EEPROM
PEP — Personality EPROM
PFB — Platform Board
PLCC — Plastic Leaded Chip Carrier
PLL — Phase-Locked Loop
PPB — Package Personality Board
PQFP — Plastic Quad Flat Pack
PWM — Pulse-Width Modulation
QADC — Queued Analog-to-Digital Converter (10-Bit)
QFP — Quad Flat Pack
QSM — Queued Serial Module (SCI + QSPI)
QSPI — Queued SPI
RTI — Real-Time Interrupt
SCI — Serial Communication Interface
SCI+ — Enhanced SCI
SCIM — Single-Chip Integration Module
SDI — Serial Debug Interface Cable (BDM Cable)
SDIP — Shrink Dual In-line Package
SIM — System Integration Module
SIML — Low-Power System Integration Module
SIOP — Simple Serial I/O Port
SPI — Serial Peripheral Interface
SPI+ — Enhanced SPI
SRAM — Standby RAM Module
TC — Target Cable
TH — Target Head Adapter
TIB — Target Interface Board
TPU — Time Processing Unit (16 Programmable Channels)
TPURAM — Standby RAM Module with TPU Emulation Capability
UART — Universal Asynchronous Receiver/Transmitter
USB — Universal Serial Bus
XC — Initial Production Qualification, Not Fully Characterized

— Package Designators —

B — Shrink DIP (70 mil spacing)
DW — Small Outline (Wide-Body SOIC)
FA — 7 x 7 mm Quad Flat Pack (QFP)
FB — 10 x 10 mm Quad Flat Pack (QFP)
FE — CQFP (windowed) — Samples Only
FN — Plastic Quad (PLCC)
FS — CLCC (windowed) — Samples Only
FT — 28 x 28 mm Quad Flat Pack (QFP)
FU — 14 x 14 mm Quad Flat Pack (QFP)
FZ — CQFP (windowed) — Samples Only
K — Cerdip (windowed) — Samples Only
L — Ceramic Sidebrazed
P — Dual in-Line Plastic
PU — 14 x 14 mm Low-Profile Quad Flat Pack (LQFP)
PV — 20 x 20 mm Low-Profile Quad Flat Pack (LQFP)
S — Cerdip (windowed) — Samples Only

Useful web information:

MCU Home	http://www.mcu.motsps.com
3rd Party Tools	http://www.mcu.motsps.com/dev_tools/3rd/index.html
Tools Documentation	http://www.mcu.motsps.com/documentation/index.html
Free Software	http://www.mcu.motsps.com/dev_tools/index.html
Tools Ecommerce	http://www.mcu.motsps.com/sales/howtobuy.html

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