

## 8-Bit Microprocessor ICs — continued

### MC68HC08 In-Circuit Simulator Kits



These Programmer/In-Circuit Simulator (ICS) kits help develop code and debug target systems incorporating the MC68H(R)C908 range of FLASH microcontrollers. The Windows based development environment incorporates an assembler, editor, simulator and debugger which provide an ideal platform to write and debug code for this range of devices.

Features:

- Windows based IDE interface
- Programs, Simulates and Emulates the selected devices
- J/LJK Unit can accept DIL and SOIC 20/28 pin devices
- Serial cable and all Header cables supplied
- Universal power supply included
- MCU samples
- Technical manuals and software supplied

SEM891

	Order Code	Price Each
M68ICS08JL-kit ...development kit for MC68H(R)C908JLx/JKx	<b>332-4400</b>	
M68ICS08GP-kit ...development kit for MC68HC908GP32	<b>333-3413</b>	
M68ICS08JB-kit ...development kit for MC68HC908JB8xx	<b>348-0197</b>	

SEM441

68711	Mftr.	Pins	Description
68HC711	MOT	52	8-bit MCU, 512 bytes RAM, 12K bytes OTP PROM, 38 I/O ports, multiplexed bus, timer and ADC. PLCC Package.
68HC711	MOT	44	8-bit MCU, 192 bytes RAM, 4K bytes OTP PROM, 32 I/O ports
68HC711	MOT	40	8-bit MCU, 192 bytes RAM, 4K bytes OTP PROM, 32 I/O ports, timer

### Z80

80	ZILOG	40	8-bit CPU, 6MHz (Z80BCPUPS)
84C	ZILOG	40	8-bit CMOS CPU, 8MHz
84C	ZILOG	40	8-bit CMOS CPU, 10MHz

### Integrated Z80

80180	ZILOG	64	8-bit CMOS, enhanced, High Integration CPU, Z80 Software Compatible, 6MHz
80180	ZILOG	68	8-bit, CMOS, enhanced, High Integration CPU, Z80 Software Compatible, 6MHz (PLCC Package)

### 8031

80C31	OKI	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. PLCC Package
80C31	INTEL	44	8-bit CMOS CPU, 128 bytes RAM - 12MHz. PLCC Package
80C31	INTEL	40	8-bit CMOS CPU, 128 bytes RAM - 12MHz.
80C31	TEM	40	8-bit CMOS CPU, 128 bytes RAM - 12MHz (Low Voltage)
80C31	TEM	40	8-bit CMOS CPU, 128 bytes RAM - 25MHz.
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. PLCC Package
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. QFP Package
80C31	PS	40	8-bit CMOS CPU, 128 bytes RAM - 16MHz.
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 33MHz. PLCC Package
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 33MHz. PQFP Package
80C31	PS	40	8-bit CMOS CPU, 128 bytes RAM - 12MHz (Revision 2)
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 12MHz. PLCC Package (Revision 2)
80C31	PS	40	8-bit CMOS CPU, 128 bytes RAM - 16MHz (Revision 3)
80C31	PS	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. PLCC Package
80C31	TEM	44	8-bit CMOS CPU, 128 bytes RAM - 12MHz (Low Voltage). PLCC Package
80C31	TEM	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. PLCC Package
80C31	TEM	40	Enhanced 8-bit CMOS CPU, 128 bytes RAM, 2.7-5V - 30MHz (IND TEMP)
80C31	TEM	40	Enhanced 8-bit CMOS CPU, 128 bytes RAM - 40MHz
80C31	TEM	40	Enhanced 8-bit CMOS CPU, 128 bytes RAM - 40MHz (IND TEMP)
80C31	TEM	40	8-bit CMOS CPU, 128 bytes RAM - 12MHz (IND TEMP)
80C31	TEM	40	8-bit CMOS CPU, 128 bytes RAM - 16MHz.
80C31	TEM	44	8-bit CMOS CPU, 128 bytes RAM - 16MHz. PLCC Package

### 8032

80C32	TEM	40	8-bit CMOS CPU, 256 bytes RAM - 12MHz (IND TEMP)
80C32	PS	40	8-bit CMOS CPU, 256 bytes RAM - 16MHz. PLCC Package
80C32	PS	40	8-bit CMOS CPU, 256 bytes RAM - 16MHz (Low Voltage)
80C32	PS	44	8-bit CMOS CPU, 256 bytes RAM - 33MHz. PLCC Package
80C32	PS	44	8-bit CMOS CPU, 256 bytes RAM - 33MHz. QFP Package
80C32	PS	40	8-bit CMOS CPU, 256 bytes RAM - 33MHz.
80C32	TEM	40	8-bit CMOS CPU, 256 bytes RAM - 12MHz.
80C32	TEM	40	8-bit CMOS CPU, 256 bytes RAM - 16MHz.
80C32	TEM	44	8-bit CMOS CPU, 256 bytes RAM - 16MHz. PLCC Package
80C32	TEM	40	Enhanced 8-bit CMOS CPU, 128 bytes RAM, 2.7-5V - 30MHz
80C32	TEM	44	Enhanced 8-bit CMOS CPU, 128 bytes RAM, 2.7-5V - 30MHz (PLCC)
80C32	TEM	40	Enhanced 8-bit CMOS CPU, 256 bytes RAM - 40MHz
80C32	TEM	44	Enhanced 8-bit CMOS CPU, 256 bytes RAM - 40MHz (PLCC)
80C32	TEM	40	Enhanced 8-bit CMOS CPU, 128 bytes RAM - 40MHz (IND TEMP)

### 8031/8051 Upgrades

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Device	High Speed Core	ROM bytes	RAM bytes	Serial I/O	Timer Counter	External Interrupts	Precision Reset/Power-fail Interrupt	Data Pointers (16-bit)	Operating Voltage	Packages
DS80C310	✓	—	256	1	3	6		2	4.5V-5.5V	DIP-40, PLCC-44
DS80C320	✓	—	256	2	3+ Watchdog	6	✓	2	4.5V-5.5V	DIP-40, PLCC-44
DS87C520	✓	16K	256	2	3+ Watchdog	6	✓	2	4.5V-5.5V	DIP-40, PLCC-44

Mftrs. List No.	Order Code	Price Each
MC68HC711E9CFN2	<b>SMD 639-059</b>	
MC68HC711D3CFN2	<b>SMD 793-413</b>	
MC68HC711D3CP2	<b>793-425</b>	
Z80400-06PSC	<b>388-713</b>	
Z84C00-08PEC	<b>596-991</b>	
Z84C00-10PEC	<b>597-004</b>	
Z80180-06PSC	<b>270-684</b>	
Z80180-06VSC	<b>SMD 270-696</b>	
MSM80C31FJS-1	<b>SMD 641-054†</b>	
N80C31BH-1	<b>SMD 316-6223</b>	
P80C31BH-1	<b>316-6260</b>	
P80C31L12	<b>786-883</b>	
P80C31-25	<b>704-052†</b>	
P80C31SBAA	<b>SMD 120-510</b>	
P80C31SBBB	<b>SMD 316-5966</b>	
P80C31SBPN	<b>120-509</b>	
P80C31UBAA	<b>SMD 120-522</b>	
P80C31UBBB	<b>SMD 316-5991</b>	
PCB80C31BH12P	<b>388-865</b>	
PCB80C31BH12WP	<b>SMD 388-877†</b>	
PCB80C31BH16P	<b>388-889</b>	
PCB80C31BH16WP	<b>SMD 388-890†</b>	
S80C31L12	<b>SMD 786-901†</b>	
S80C31-16	<b>SMD 704-106†</b>	
TS80C31X2-LCB	<b>332-4722</b>	
TS80C31X2-MCA	<b>332-4643</b>	
TS80C31X2-MIA	<b>332-4710</b>	
TSC80C31-12	<b>786-895†</b>	
TSC80C31-16CA	<b>704-040†</b>	
TSC80C31-16IA	<b>306-9242</b>	
IP80C32-12	<b>704-131†</b>	
P80C32SBAA	<b>SMD 302-6085</b>	
P80C32SBPN	<b>121-071</b>	
P80C32UBAA	<b>SMD 316-6004</b>	
P80C32UBBB	<b>SMD 316-5980</b>	
P80C32UBPN	<b>316-6132</b>	
P80C32-12	<b>704-076†</b>	
P80C32-16	<b>704-088†</b>	
S80C32-16	<b>SMD 704-118†</b>	
TS80C32X2-LCA	<b>332-4734</b>	
TS80C32X2-LCB	<b>SMD 332-4746</b>	
TS80C32X2-MCA	<b>332-4655</b>	
TS80C32X2-MCB	<b>SMD 332-4679</b>	
TS80C32X2-MIA	<b>332-4692</b>	

† Available until stocks are exhausted