

## 8-Bit Microprocessor ICs — continued

### Gemini-1 - ISP Programmer for Philips 8051 Flash Microcontrollers



Gemini-1 is a CE compliant programmer, supports In-System Programming (ISP) of the Philips 89C51Rx+ FLASH Microcontroller Families using the serial port of the target microcontroller.

Features:

- Supports In-System Programming (ISP) of the Philips 89C51Rx+ FLASH Microcontroller Family
- Connects to PC serial (COM) port using cables supplied
- ISP cable connects to user target system via 10-way header
- Obtains power (+5V) from the target system
- Generates +12V Vpp on-board the programmer
- Powerful 'Programmer Interface Software' (compatible with Win 3.1, 95, 98 & NT)
- Field upgradeable programmer firmware

Device support:

- Philips: 89C51RA+, 89C51RB+, 89C51RC+, 89C51RD+

**EQ-GEM 1, Gemini-1 ISP Programmer.....Order Code 316-6077**

SEM839

each

### ATMEL 8051 FLASH Microcontroller Features

SEM352

	FLASH Code ROM (bytes)	RAM (bytes)	I/O Pins	Timer/ Counters	Interrupt sources	Serial UART (full duplex)	Analogue comparator	Data pointers	External address/data bus	Security lock bits	Max Osc. Speed (MHz)	Power down & idle mode	I/O current sink (mA per pin)	Max total I/O current sink (mA)
<b>89C51</b>	4K	128	32	2	6	YES	—	1	YES	3	24	YES	10	71
<b>89C52</b>	8K	256	32	3	8	YES	—	1	YES	3	24	YES	10	71
<b>89C1051</b>	1K	64	15	1	3	—	YES	1	—	2	24	YES	20	80
<b>89C2051</b>	2K	128	15	2	6	YES	YES	1	—	2	24	YES	20	80

### 8031/8051 with On-Board FLASH Memory

SEM353

Mftr. Pins Description

PEROM = Programmable and erasable read only memory

Mftr.	Pins	Description
89C55	ATM 44	8-bit MCU, 20Kb FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz (PLCC) .....
89C55	ATM 40	8-bit MCU, 20Kb FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz .....
89C55	ATM 44	8-bit MCU, 20Kb FLASH PEROM, 256b RAM, 32 I/O lines - 33MHz .....
89C55	ATM 40	8-bit MCU, 20Kb FLASH PEROM, 256b RAM, 32 I/O lines - 33MHz .....
89C1051	ATM 20	8-bit MCU, 1Kb FLASH PEROM, 64b RAM, full duplex serial UART, 2 timers, 15 I/O lines - 24MHz .....
89C1051	ATM 20	8-bit MCU, 1Kb FLASH PEROM, 64b RAM, full duplex serial UART, 2 timers, 15 I/O lines - 24MHz .....
89C1051	ATM 20	8-bit CMOS MCU, 1Kb FLASH PEROM, 64b RAM, 15 I/O lines - 24MHz .....
89C1051	ATM 20	8-bit CMOS MCU, 1Kb FLASH PEROM, 64b RAM, 15 I/O lines - 24MHz .....
89C2051	ATM 20	8-bit CMOS MCU, 2Kb FLASH PEROM, 128b RAM, 15 I/O lines - 24MHz .....
89C2051	ATM 20	8-bit CMOS MCU, 2Kb FLASH PEROM, 128b RAM, 15 I/O lines - 24MHz .....
89C2051	ATM 20	8-bit CMOS MCU, 2Kb FLASH PEROM, 128b RAM, 15 I/O lines - 24MHz .....
89C4051	ATM 20	8-bit MCU, 4Kb FLASH PEROM, 64b RAM, full duplex serial UART, 2 timers, 15 I/O lines - 24MHz .....
89C4051	ATM 20	8-bit MCU, 4Kb FLASH PEROM, 64b RAM, full duplex serial UART, 2 timers, 15 I/O lines - 24MHz (IND TEMP) .....
89C4051	ATM 20	8-bit MCU, 4Kb FLASH PEROM, 64b RAM, full duplex serial UART, 2 timers, 15 I/O lines - 24MHz .....
89S8252	ATM 44	8-bit MCU, 8Kb FLASH PEROM, 2Kb EEPROM, 256b RAM, 32 I/O lines - 24MHz. PLCC Package .....
89S8252	ATM 40	8-bit MCU, 8Kb FLASH PEROM, 2Kb EEPROM, 256b RAM, 32 I/O lines - 24MHz .....

Mftrs. List No.	Order Code	1+	10+	100+	250+	Price Each
AT89C55-24JC	<b>SMD 302-2353</b>					
AT89C55-24PC	<b>302-2341</b>					
AT89C55-33JC	<b>SMD 795-380†</b>					
AT89C55-33PC	<b>.795-379†</b>					
AT89C1051U-24PC	<b>120-893</b>					
AT89C1051U-24SC	<b>SMD 120-900</b>					
AT89C1051-24PC	<b>.701-063</b>					
AT89C1051-24SC	<b>SMD 701-075</b>					
AT89C2051-24PC	<b>.701-087</b>					
AT89C2051-24SC	<b>SMD 701-099</b>					
AT89C4051-24PC	<b>120-911</b>					
AT89C4051-24PI	<b>333-8010</b>					
AT89C4051-24SC	<b>SMD 120-923</b>					
AT89S8252-24JC	<b>SMD 795-409</b>					
AT89S8252-24PC	<b>.795-392</b>					

† Available until stocks are exhausted

### 87C51 with On-Board FLASH Memory

SEM354

Mftr. Pins Description

PEROM = Programmable and erasable read only memory

Mftr.	Pins	Description
89C51	ATM 40	8-bit MCU, 4Kb FLASH PEROM, 128b RAM, 32 I/O lines - 24MHz .....
89C51	ATM 44	8-bit MCU, 4Kb FLASH PEROM, 128b RAM, 32 I/O lines - 24MHz. PLCC Package .....

Mftrs. List No.	Order Code	1+	10+	100+	250+	Price Each
AT89C51-24PC	<b>700-988</b>					
AT89C51-24JC	<b>SMD 795-355</b>					

### 87C52/3 with On-Board FLASH Memory

SEM355

Mftr. Pins Description

PEROM = Programmable and erasable read only memory

Mftr.	Pins	Description
89C52	ATM 40	8-bit MCU, 8Kb FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz .....
89C52	ATM 44	8-bit MCU, 8Kb FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz. PLCC Package .....
89S53	ATM 40	8-bit MCU, 12K FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz .....
89S53	ATM 40	8-bit MCU, 12K FLASH PEROM, 256b RAM, 32 I/O lines - 24MHz .....

Mftrs. List No.	Order Code	1+	10+	100+	250+	Price Each
AT89C52-24PC	<b>701-014</b>					
AT89C52-24JC	<b>SMD 795-367</b>					
AT89S53-24PC	<b>120-935</b>					
AT89S53-24JC	<b>SMD 120-947</b>					