



# Socket Modules and Socket Cards

Programming the Future with the Highest Yield at the Highest Speeds

## BPM Sockets

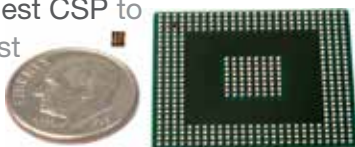
Socket modules and socket cards are the electro-mechanical interface between the programmable semiconductor device and the programmer. The robust design is ideal for manufacturing and design environments where high signal integrity and reliable performance are critical.

The sophisticated technology of BPM Microsystems' active circuitry delivers the cleanest waveform signals to the device by eliminating noise, ground bounce, and overshoot, which allows for the most reliable vector testing available to ensure the highest quality and overall yield.

BPM Microsystems offers a substantial number of socket modules and socket cards to support thousands of devices from over 210 semiconductor manufacturers. New socket module and socket card designs are continuously added and can be developed quickly to meet your programming needs.

Our socket modules and socket cards provide you with the best combination of programming quality and cost of ownership. Unlike our competitors, you can order as many socket solutions as you need— even if it's only one! Contact us with regards to your specific needs.

Sockets for devices ranging from the smallest CSP to the largest QFP



## High Insertion Count Sockets

- Also known as long-life sockets, HICs are designed for customers with high volume production requirements
- Rated from 200,000 to 300,000 insertions
- Pogo pins can be replaced to extend the life of the socket
- Ensure productivity, long-term reliability, and very low operating cost per insertion



Compatible Programmers:  
9th Gen: 1900, 2900, 2900L, 3900, 4900  
8th Gen, 7th Gen, 6th Gen

## Socket Cards

- Socket cards offer the shortest return on investment on a cost-per-device basis
- Reduce the programming cost per device



Compatible Programmers:  
9th Gen: 1900, 2900, 2900L, 3900, 4900  
8th Gen: 2800, 2800F, 2800F-MK2, 3000FS-MK2, 3800, 3800-MK2, 4800

## Replacement Daughter Cards

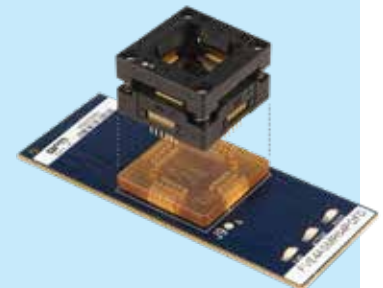
- Get the most out of your socket module with our individual replacement socket daughter cards
- Unlike our competitors' "gang" cards, you can optimize the number of socket daughter cards needed and replace them individually



Compatible Programmers:  
9th Gen: 1900, 2900, 2900L, 3900, 4900  
7th Gen, 6th Gen

## Receptacle-Base

- Receptacle-base socket modules and socket cards include a interface between the printed circuit board and the socket
- Replace only the individual consumable socket once it reaches its useful life
- Extend the life of the socket module and socket card, producing higher yields and lowering programming cost per device



Compatible Programmers:  
9th Gen: 1900, 2900, 2900L, 3900, 4900  
8th Gen, 7th Gen, 6th Gen

## Add support to the software for the following devices for only \$500

Socket modules available for 7th, 8th, and 9th Generation Programmable— just provide us with a sample to allow in-house testing

| Manufacturer      | Device Name                   | Socket Modules   | 9th Gen |      |      |      | 8th Gen |      |      |       | 7th Gen |      |      |      | Support/ Software |
|-------------------|-------------------------------|--|---------|------|------|------|---------|------|------|-------|---------|------|------|------|-------------------|
|                   |                               |  | 4900    | 3900 | 2900 | 1900 | 4800    | 3800 | 2800 | 2800F | 4700    | 3700 | 2700 | 1700 |                   |
| Atmel             | AT24CM01-SSHM                 | FVE4ASMR08SJAB<br>FVE4ASMR08SJCA                                 |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Atmel             | AT45DQ321-MHF2B               | FX4ASMR08MLFG<br>FX4SMR08MLF<br>FASMR08MLFG<br>FSMR08MLFG        |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Atmel             | AT45DQ321-MWHF2B              | FASMR08CSON<br>FSMR08CSON<br>FASMR08CSON<br>FSMR08CSON           |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| ISSI              | IS25LP080D-JBLE/A3            | FVE4ASM08SHLA<br>FVE4ASMR08SHLA<br>FVE4ASM08SHA<br>FVE4ASMR08SHA |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| ISSI              | IS25LP080D-JKLE/A3            | FVE4ASM08LAPG<br>FVE4ASMR08LAPG                                  |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Macronix          | MX25L1606EZUI-12G             | FVE4ASMC08DNA  |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Micron            | MTFC4GACAECN-1M<br>WT         | FVE4ASM153FBGE<br>FVE4ASMC153BGJ                                 |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| NXP               | LPC1111FHN33/101              | FVE4ASML33QFNT   |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| NXP               | LPC1111FHN33/103              | FVE4ASML33QFNT   |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| ON Semiconductor  | C24C16XI-T2                   | FVE4ASM08SHA<br>FVE4ASMR08SHLA<br>FVE4ASM08SHA<br>FVE4ASMR08SHLA |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Samsung           | KLM4G1FETE-B041               | FVE4ASMC153BGC<br>FVE4ASMC153BGR                                 |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Samsung           | KLM4G1FETE-B041<br>(with DDR) | FVE4ASMC153BGR   |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Spansion          | S29GL064N90TFI023             | FVE4ASM56TC<br>FVE4ASMR56TC<br>FVE4ASMR56TCK                     |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Spansion          | S29JL032J70BFI420             | FX4ASMC48FVBGB   |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |
| Texas Instruments | MSP430FR5969IRGZR             | FVE4ASMR48QNP  |         |      |      |      |         |      |      |       |         |      |      |      | \$500             |

**\*Discontinued** We no longer sell these discontinued socket modules. However, for those who already have those modules, you can place a purchase order for the algorithm device support development

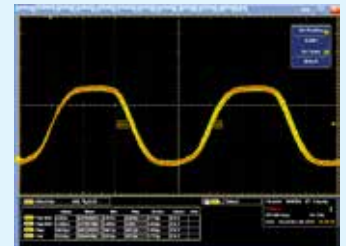


[bpmmicro.com/sockets](http://bpmmicro.com/sockets)  
Toll Free: 800-255-2102



## The BPM Socket Advantage(s)

- Buy what you need— No minimum for manual programmer sockets, and minimum two for an APS
- Good: Receptacle based sockets can be purchased and replaced without the need to use any tools
- Better: High Insertion Count (HIC) and long life sockets will run hundreds of thousands of insertions
- We support devices that are used in high-reliability mission-critical applications (such as aerospace and automotive) which requires the highest quality programming equipment
- Parallel Mode— BPM's Automated programmer provides 240 high-speed pin drivers that enable us to support devices in faster parallel mode
- Highest Yield at High Speed— Our socket modules use controlled impedance connectors with gold-plated ground blades which deliver the cleanest signals while eliminating ground bounce, ensuring the highest yield even with high-speed devices



- Our patented Vector Engine Co-Processor on the 8th and 9th Gen programming site helps execute performance-critical portions of a device algorithm in the fastest possible manner. Side-by-side speed tests show the Vector Engine can reduce programming times by up to 700%
- See more at [bpmmicro.com/sockets](http://bpmmicro.com/sockets)

