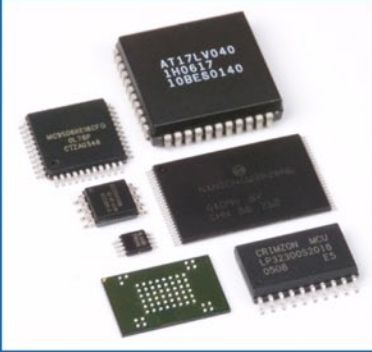
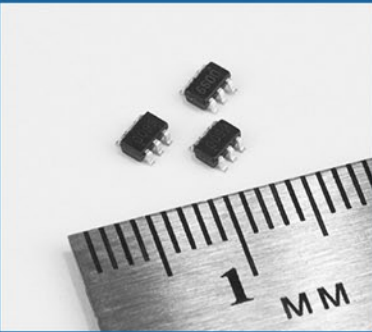


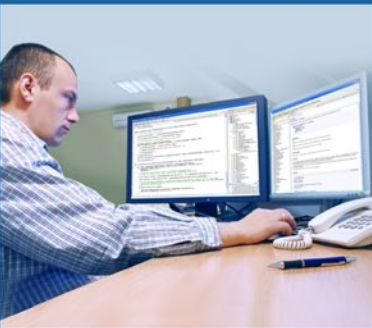
- Support for over 30,000 devices from over 125 semiconductor manufacturers



- Thousands of socket modules to fit virtually all silicon packages including BGA, SOIC, TSOP, QFP, PLCC, QFN and more



- Support for VSP (Very Small Package) devices including MSOP8, TSOC6, and SOT23 as small as 1.63 mm by 2.95 mm



- Daily releases supporting the latest silicon packages and new programming algorithms
- Support for today's latest fine-pitch devices, 0.5 mm and smaller
- Achieve maximum throughput, high yields, and high production with real-time socket replacement during a job
- Simultaneous development and release for low volume and high volume production solutions
- Active, Pass and Fail LED status indicators on each individual socket

BPM Microsystems' universal programmer socket modules and Flashstream® socket cards are the electro-mechanical interface between the programmable semiconductor device and the programmer. The robust design of socket modules and socket cards 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, and allows for the most reliable vector testing available to ensure the highest quality and overall yield.

FX4 and FX2 Socket Modules

FX4 and FX2 socket modules are specifically designed for the 7th Generation series of programmers. The FX4 socket modules program up to four devices simultaneously on just one programming site. FX2 socket modules program up to two devices simultaneously on just one programming site.

The independent socket daughter card design improves programming up-time and lowers operating cost because each socket daughter card can be replaced individually. This innovative design enables users to achieve greater productivity and reliability.



FX Socket Modules

FX socket modules offer improved programming speed over standard socket modules. Ideal for the programming of flash memory devices, FX modules are supported on both the 6th and 7th Generation series of programmers.

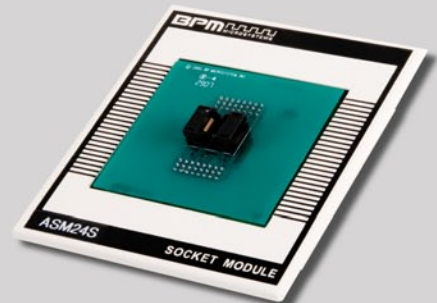
Many FX modules are designed with a replaceable socket daughter card. This design feature extends the life of the socket module and improves signal integrity to the device.



Standard Socket Modules

BPM Microsystems' earliest socket module technology helped pave the way to the sophisticated design of the later generation socket modules, like FX4, FX2, and FX. Still developed today to support a variety of packages and devices, BPM Microsystems' standard socket modules are compatible with all BPM Microsystems' universal device programmers.

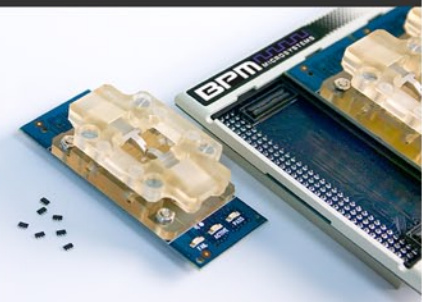
From high-fidelity signal integrity and robust design, to upward compatibility with later generation universal programming technology, BPM Microsystems' socket modules provide the best combination of programming quality and cost of ownership.



High Insertion Count Socket Modules

For customers with high volume production requirements who aim for maximum programming yields, BPM Microsystems has developed HIC (High Insertion Count), or long-life, socket modules. Rated to 300,000 cycles, BPM Microsystems offers HIC socket modules to support a variety of packages, including VSP (Very Small Package).

- Precision design ensures productivity and long-term reliability
- Very low operating cost per insertion
- Pogo pins replaceable to extend socket life

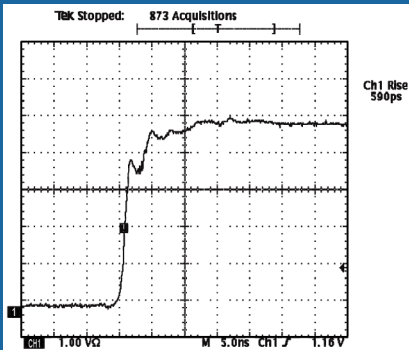


Highest Quality Waveforms

The combination of BPM Microsystems device programming systems, BPWin software and precision socket interface systems produce the highest quality waveforms in the device programming industry.



- Support the ability of BPWin to perform continuity test on all relevant pins
- Built-in self test supports functional test for socket module circuitry



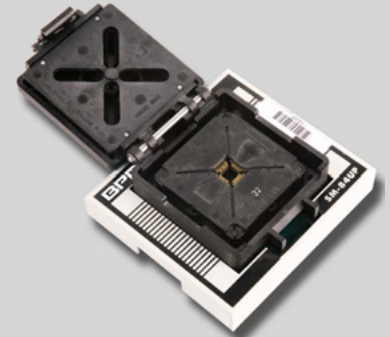
Waveform at DUT (Device Under Test) at a resolution of 5.0ns

- Deliver clock, analog or digital signals to the DUT
- Signals close to DUT ensure clean waveforms
- Direct up to 240 independent pin drivers
- Active circuitry design virtually eliminates ground bounce
- Extremely fast signal rise-time supports high-speed devices

Universal Socket Modules

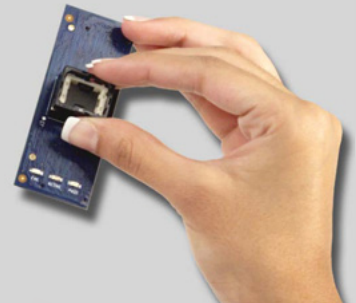
For a flexible and economic programming solution, BPM Microsystems offers universal socket modules to support PLCC and DIP packages. The SM84UP supports over 5,000 PLCC devices with the use of individual templates to accommodate different pin counts. Templates for 20, 28, 32, 44, 52, 68, and 84 pin devices are included with each module.

The SM48D supports over 6,000 DIP devices and is compatible with all BPM Microsystems' manual universal device programmers.



Socket Module Replacement Socket Daughter Cards

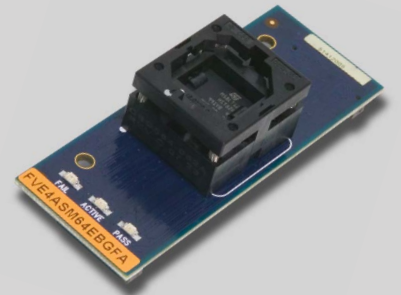
BPM Microsystems gives customers the ability to program with and replace socket daughter cards individually. Unlike competitors' "gang" cards that are soldered to a common PCB, customers can optimize the number of socket daughter cards needed and replace them without dramatically affecting programming capacity. This fault-tolerant design increases manufacturing up-time and saves replacement costs by as much as 75 percent.



Flashstream Socket Cards

Flashstream's programming speed and socket card design offers the shortest return on investment on a cost-per-device basis. The unique design of Flashstream's individual socket cards and receptacle-base socket option further reduce the cost-per-device for BPM Microsystems' customers.

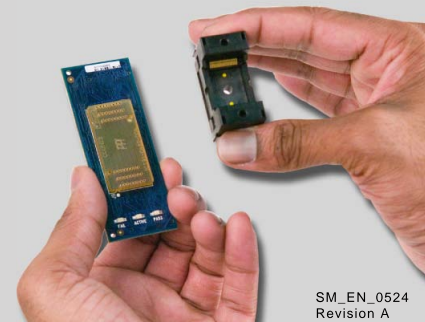
BPM Microsystems' socket cards support high density NAND Flash, NOR Flash, Serial Flash and other memory devices.



Receptacle-Base Socket Modules and Socket Cards

Receptacle-base socket modules and socket cards allow the customers to purchase only the individual socket as a replacement.

All sockets have a finite useful life. As sockets wear, yield and throughput decrease. Receptacle-base socket modules and socket cards include a receptacle interface between the printed circuit board and the consumable socket. With this approach, worn or damaged sockets can be efficiently and economically replaced. This has proven to extend the life of the socket module and socket card, producing higher yields and lowering programming cost per device.



SM_EN_0524
Revision A

