

PROGRAMMER FEATURES

- Supports the latest device architecture (OneNAND™, eMMC™, iNAND™, moviNAND™, MLC, SLC, MCU, and more)
- Supports device densities up to an 8 Eb theoretical limit
- Supports devices with voltage down to 0.7 (Vdd)
- 20ns verify with Vector Engine Co-Processor technology
- Connect multiple units to expand the concurrent programming session
- Ideal for design engineering to high-volume production
- Robust design for reliable performance

SOCKET CARD FEATURES

- Programs with one, two, three or four socket cards
- Offers a single socket card purchase for first article qualification
- Compatible with Flashstream socket cards
- Replace only worn or damaged socket with receptacle-base socket option
- Active, Pass and Fail indicators per device

SOFTWARE FEATURES

- BPWin Device Programming System
- Custom and manufacturer-approved NAND Flash bad block handling methods available; bad block replacement scheme included
- BERT™ - Bit Error Rate Tolerance
- Serialization support on all sockets
- JobMaster™ - production automation tool
- File encryption for IP protection
- Release New Device Support in as little as 2 days from order

OPTIONAL SOFTWARE

- API - Process Monitoring and Control
- Advanced Serialization with External Serialization Server (ESS)

OPTIONAL HARDWARE

- Lever Socket Actuator with Universal Pressure Plate



Eighth Generation Programming Technology

8th Generation Universal Programmer

With the unrivaled speed of Vector Engine Co-Processor® technology plus universal device support, BPM Microsystems' model 2800 is truly the industry's fastest universal programmer. The 2800 is designed to program high density NAND Flash, NOR Flash, Serial Flash, Managed NAND Flash, EPROM, EEPROM, Flash EPROM, Microcontrollers and other technologies at remarkable speeds. In addition, the 2800 features the latest 64-bit architecture and 16 GB of onboard memory, which pushes programming beyond the 4 GB data density barrier. These features combined make the 2800 the go-to programmer for all of your device programming needs.

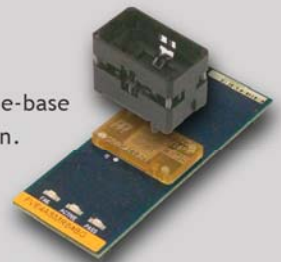
The Vector Engine Co-Processor Advantage



The ultra-fast programming speed of the 2800 universal programmer is attributed to BPM Microsystems' patented Vector Engine Co-Processor. This technology hardware-accelerates waveforms during the programming cycle. Faster speeds are achieved through synchronous operations that eliminate the dead times when the device under test waits on the programmer. The result is programming near the theoretical limits of the silicon design – the faster the device, the faster the device is programmed. As newer and faster devices are introduced onto the market, the 2800 will adapt to the faster speeds.

Economical and Efficient Socket Card Solution

The 2800 uses BPM Microsystems' innovative socket cards with receptacle-base socket option to provide the most cost-effective programming solution. Unlike competitors' "gang" cards that are soldered to a common printed circuit board (PCB), BPM Microsystems' individual socket cards can be optimized and replaced without dramatically affecting programming capacity. With our receptacle-base socket option, customers can simply purchase the consumable socket as needed. The fault-tolerant design of BPM Microsystems socket cards increases manufacturing up-time, produces higher first-pass yield, and saves replacement costs by as much as 75 percent.



BPM MICROSYSTEMS

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GENERAL

Power:	90-240 VAC, 47-63 Hz, 60W, external power supply with IEC inlet
Dimensions and Mass:	Width 7.5" (191mm) x height 4.5" (114mm) x depth 10.25" (260mm), 8 lbs. (3.6 kg)

SOFTWARE

Required:	BPWin
File Type:	Binary, Intel, Motorola, RAM, straight hex, hex-space, Tekhex, Extended Tekhex, ASCII, hex, OMF, LOF, MER, and others
Device Commands:	Blank, check sum, compare, options, program, test, erase, verify
Features:	Jobmaster™, BERT™, Auto Range, Data Editor, Revision History, Device and Algorithm information, Searchable help menu, BBM, ESS, session logging, on-line help

HARDWARE

Architecture:	Concurrent Programming System with Vector Engine Co-Processor®
Sites:	1 site model, multiple programmers may be linked to one PC
Calibration:	Annual, may be performed on site with included socket card
Diagnostics:	Pin continuity test, RAM, pin drivers, power supply, communications, calibration, timing, ADC, DAC, interconnects
Memory:	16GB per site standard
Communications:	USB 2.0
Data Pattern Broadcast:	31 Mb/s
Peak Verify Bandwidth:	20ns cycle
Firmware ROM:	No firmware ROM, Software automatically performs firmware download
User Interface:	Pass, Fail, Active, Start LEDs and Start button on each site; PC display shows systems status at a glance; auto-start mode automatically begins programming when device is inserted
PC System Requirements:	Microsoft Windows 2000 or above
Environment:	41° to 104° F (5° to 40° C) up to 70%, non-condensing humidity

STANDARD ACCESSORIES

Included:	Software on CD-ROM User manual on CD-ROM Power cable Data cable 1-year hardware warranty 1-year software support
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PIN DRIVERS

Quantity:	240-pins standard
Vpp Range:	0-13V Slew rate 2V/us
Ipp Range:	0-50mA continuous
Vcc Range:	0-7V Slew Rate 2V/us
Icc Range:	0-450mA
Rise Time:	4ns
Protection:	Overcurrent shutdown, power failure shutdown

FEATURES

File Loading:	Automatic file type identification; no download time because programmer is PC controlled; supports Intel-Hex, Motorola S-record, straight hex, hex-space, Tekhex, and other file formats
Device Selection:	Intelligent device selector allows you to type as little or as much of the part number as you like, then choose from a list of devices matching your description
Devices Supported:	NAND Flash, NOR Flash, Serial Flash EPROM, EEPROM, Managed NAND, MCU
Continuity Test:	Each pin, including Vcc, ground, and signal pins, may be tested before every programming operation
Protection:	Overcurrent shutdown, powerfailure shutdown, ESD protection, reverse insertion, banana jack for ESD wrist strap
Options:	Available Socket Cards including, but not limited to, standard PLCC, CSP, BGA, µBGA, SOIC, QFN, MLF, LAP, QFP, TSOP, LCC, SDIP, SIMM-Advanced Feature Software, simple and complex serialization, CJob Monitor and CJob Control (API), Receptacle Socket options
Programming Yield:	Assured by independent universal pin drivers on each socket, short distance from pin drivers to device, and accuracy of waveforms
Algorithms:	All algorithms are manufacturer approved or certified (if required) - BPM Microsystems has an excellent record of being first to provide certified algorithms for new devices
Algorithm Updates:	Algorithm changes and updates are available, additional algorithms available by subscription after the first year



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REV A



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