

PROGRAMMING STATION FEATURES

- Semi-automated desktop programming solution
- Auto and manual start mode
- Pogo pins replaceable in the field
- Designed with ESD compliant powder coating
- Ergonomic design with easy operation
- Low maintenance, long life

PROGRAMMING SITE FEATURES

- 8TH GEN Universal Technology with Vector Engine® BitBlast for unmatched flash programming speeds
- Device support for MCUs, high-density flash memory and more
- Supports the latest flash architectures (OneNAND™, eMMC™, iNAND™, moviNAND™, MLC, SLC, 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
- 16 GB of onboard memory per site
- Program up to 16 Devices in Parallel
- Maximum Panel Size 254mm x 304mm
- Fault-tolerant concurrent architecture
- Independent signals to each DUT
- High-speed communication to the DUT
- Program devices in parallel or serial mode
- Active, Pass, Fail indicators per site and per DUT

PROGRAMMING SOFTWARE FEATURES

- Use standard BPWin software
- JobMaster™ - production automation tool
- Standard and custom NAND bad block handling
- API - Process Monitoring and Control
- File encryption for IP protection
- Standard and Advanced Serialization
- Compatible with 8TH GEN algorithms



Eighth Generation Programming Technology

Parallel In-System Programming Station

The model 2800ISP is BPM Microsystems' production solution for in-system device programming. Combining the unmatched performance and flexibility of 8th Generation site technology with a custom-designed test fixture, operators can easily program flash, microcontrollers and other device technologies on-board after reflow.

The semi-automated design of the 2800ISP uses a pneumatic fixture with built-in safety features to actuate the pressure plate. Once actuated, the circuit board makes contact with high-quality pogo pins, specifically engineered to achieve exceptional signal integrity. Ideal for medium and high volume production, the 2800ISP is configurable and can program up to 16 devices in parallel.

Programming flash components in serial mode using traditional test equipment can be expensive and slow. With the 2800ISP and Vector Engine® BitBlast, high-density flash memory devices are able to achieve read/write speeds up to 140Mbits per second in parallel mode. This solves the test bottleneck problem while allowing the operator to program the latest data just-in-time, all while attaining a very low programming cost per device.

BPM Microsystems' technical experts work within your PCB design specifications to provide a custom turn-key solution. The 2800ISP includes the software and hardware to program on-board right out of the box. With a removable pogo-cassette, the programming station can be reconfigured in the future for new jobs. The robust fixture requires little maintenance and can provide years of service. This scalable, modular design allows for easy process duplication globally.



BITBLAST



BPM MICROSYSTEMS

5373 WEST SAM HOUSTON PKWY N., SUITE 250
HOUSTON, TEXAS 77041
T: 713.688.4600
T: 800.225.2102
F: 713.688.0920
WWW.BPMMICRO.COM

GENERAL

Dimensions: length 24" (610 mm) x width 20" (508 mm) x height 16" (406 mm)

Weight: 110 lbs. (50 kg)

SYSTEM REQUIREMENTS

Compressed Air Supply: 80 PSI (5.56 bars) dry and clean air

Input Line Voltage: 100-240 VAC , auto-switching power supply

Input Line Frequency: 50-60 Hz

Power Consumption: 400VA

Operational Temperature: 5° - 40° C (41° - 104° F)

Relative Humidity: up to 70% non-condensing humidity

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, program, test, erase, verify

Features: Jobmaster™, Bit Error Rate Tolerance, Auto Range, Data Editor, Revision History, Device and Algorithm information, Searchable help menu, BBM, ESS, session logging

HARDWARE

Architecture: Concurrent Programming System with Vector Engine Co-Processor®

Sites: 1-4 site model, configurable

Capacity: Up to 16 DUTs in parallel

Maximum Panel Size: 254mm x 304.8mm**

Calibration: Annual, may be checked on site

Diagnostics: Pin continuity test, pin drivers, power supply, communications, calibration, timing, ADC, DAC, interconnects

Memory: 16GB per site standard

Communications: USB 2.0, RS-232

Peak Verify Bandwidth: 20ns cycle

Firmware ROM: No firmware ROM, software automatically performs firmware download

User Interface: Pass, Fail, Active, Start, Interlock ready, Programmer ready, and Pressure plate error LEDs; Start button; Power Enable button; Emergency stop button; PC display shows systems status at a glance; auto-start mode

PC System Requirements: Microsoft Windows 7 - 64 Bit
BPWin software with current license
Four individual USB ports
COM port
4 GB of RAM minimum

PIN DRIVERS

Quantity: 240-pins standard, per site

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; 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 E/EPROM, Managed NAND, MCU, PCM and others

Continuity Test: Each pin, including Vcc, ground, and signal pins, may be tested before every programming operation

Protection: Overcurrent shutdown, powerfailure shutdown, ESD protection, banana jack for ESD wrist strap

Options: Advanced Feature Software, simple and complex serialization, CJob Monitor and CJob Control (API)

Programming Yield: Assured by independent universal pin drivers on each DUT, short distance from pin drivers to device, and accuracy of waveforms

Algorithms: All algorithms meet manufacturer approved specifications - 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

STANDARD ACCESSORIES

Included: software on CD-ROM
Quick Start Guide
1 diagnostics socket card
1 power cable
4 USB 2.0 cables
1 serial communications cable
1-year hardware warranty
1-year software support

**Larger custom panel sizes available

*BPM Microsystems acknowledges the trademarks of other organizations for their respective products or services.

2800ISP_EN_1111
REV C

