



1,450 DPH • 7 Sites  
**BPM 3928**  
 Production Programmer

Powerful Automated Device  
 Programmer in a Small Package

**Up To 28  
 Sockets!**



# Programming the Future



## Make Device Programming Easy

Saving time in set-ups without requiring advanced technicians



## Get the Lowest Cost per Device

Bring programming in-house and turn your operation from a cost center to a profit center



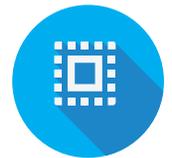
## 9<sup>TH</sup> Generation Site Technology

Future-proof investment with true universal site technology



## CyberOptics®

On-the-fly vision alignment—fast, precise and efficient in a production environment



## WhisperTeach™

Automatic Z-Teach— reduces setup time per job and improves accuracy and quality



**WhisperTeach™** provides automated Z-height detection, critical for each pick/place location. Setup is fast and accurate, reducing teach time *as much as 83%*

**9<sup>TH</sup> Gen** site technology offers the broadest support in the industry at unsurpassed programming speeds. We support more devices on a single site platform than any other



**CyberOptics® Vision** with component auto-measure— for fast set-up, true CSP support, and on-the-fly alignment for maximum quality and productivity

**Seven 9<sup>TH</sup> Gen sites** with Vector Engine and BitBlast provides full universal support at incredible speeds for **up to 28 sockets**

**Optional Automated Peripherals** to maximize/customize your 3928

- Laser Marker
- Tray Stacker
- Tape Input/Output
- Tube Input/Output
- Tray Shuttle

**Pick & Place System**

- Handler Throughput:** Up to 1,450 Devices per Hour (with vision centering)
- Component Handling Range:** 0402 to 240-pin QFP (0.4 x 0.2mm to 32 x 32mm)
- Machine Dimensions:** Length 127cm, width 61cm, height 137cm
- Safety Standard:** CE compliant
- Self-test:** Power supplies, CPU, memory, X, Y, Z, theta motion systems, nozzle run-out, and height

**Positioning System**

- X-Y Drive System:** High-performance stepper motor driven belt
- X-Y Encoder Type:** Linear optical scale
- X-Y Axis Positioning Accuracy:** ± 0.015mm
- X-Y Axis Maximum Velocity:** 150cm per second
- Z Drive System:** High-performance stepper motor driven lead screw
- Theta Drive System:** Precision stepper motor-driven direct drive assembly
- Theta Accuracy:** 0.014°
- Z-Axis Teach Accuracy with WhisperTeach™:** ± 0.015mm

**Vision System**

- Alignment:** CyberOptics® On-The-Fly
- Downward Vision:** CCD, GigE compliant

**Programming Hardware**

- Architecture:** 9<sup>TH</sup> Gen Concurrent Programming System with Vector Engine Co-Processor
- Programming Sites:** 2 to 7 sites, 1 to 4 sockets per site, 28 sockets max
- Calibration:** Annual, may be performed on site
- Diagnostics:** RAM, communications, calibration, timing, LEDs, fans, pinout, power supplies, voltage/current/slew for vpp and vcc, high current vcc mode, digital pin drivers, and relays. Ground Transistors, digital driver path to programmer, dcard LEDs, customizable diagnostics per dcard, Precision Measurement Unit (PMU) pin drivers
- Memory:** 256GB per site, upgradeable to 512GB

**Software**

- Required:** BPWin™
- File Type:** Binary, Intel, Motorola, RAM, straight hex, hex-space, Tekhex, Extended Tekhex, ASCII, hex, OMF, LOF, MER and others
- Device Processes:** ID check, blank check, continuity, auto start, compare, read, erase, program, verify, multi-pass verify, test, checksum, secure, device configure, auto-range, options and more
- Operating System:** Windows 10, Windows 7, 64-bit
- Network Interface:** Gigabit Ethernet
- Advanced Feature Software:** Simple and complex serialization, Cjob Monitor and Cjob Control (API)

**Peripheral Options**

- Peripherals:** Tape Input/Output, Tray Stacker, Tray Shuttle, Tube Input/Output, CO<sub>2</sub> Laser Marker

See the video at [bpmmicro.com/3928-2](http://bpmmicro.com/3928-2)

