

BPM 3910

High-Throughput, High-Yield, and Fast Job Changeover Time equate to the Lowest Programming Cost-Per-Device

Up To **1,432** Devices per Hour

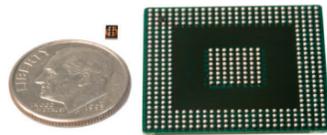
3910



Award-winning BPWin™ Software



Full system throughput with package sizes ranging from the smallest CSP to the largest QFP



Highest throughput in the smallest footprint



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

9TH Gen site technology offers the broadest support in the industry at incredible programming speeds. We support more devices on a single site platform than any other

CyberOptics™ Vision with component auto-measure—for fast set-up, and on-the-fly alignment for maximum throughput

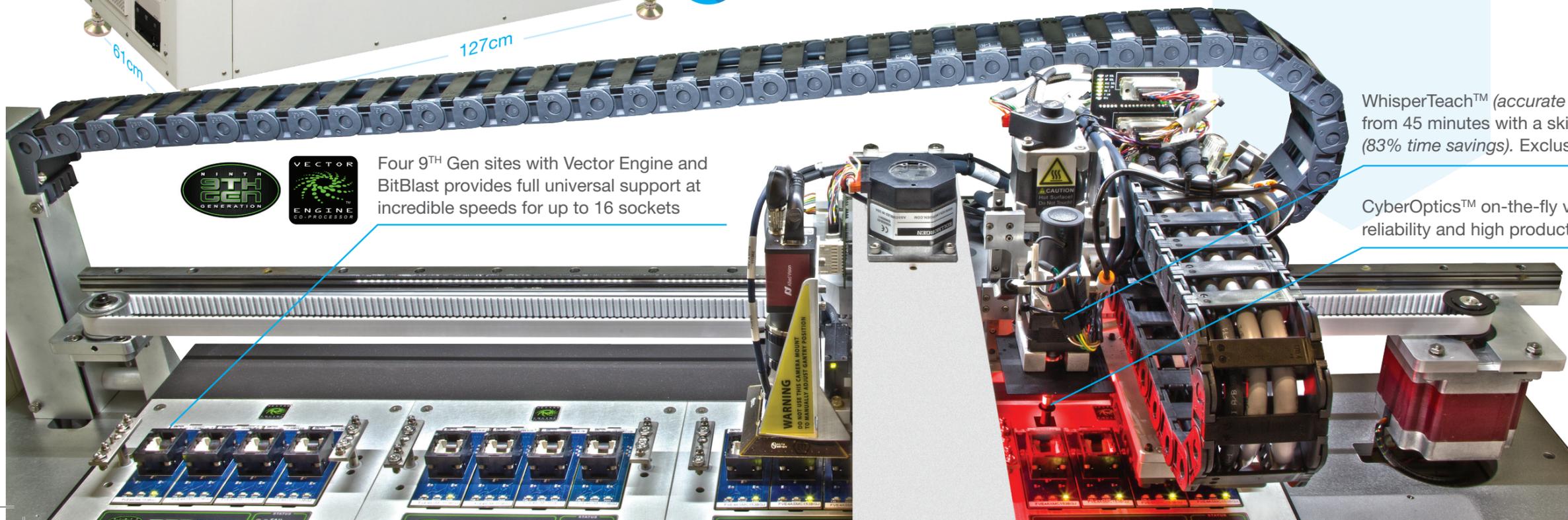
Making Device Programming Fast, Easy and Profitable

- Optional Automated Peripherals to maximize/customize your 3910
- Laser Marker
 - Tray Stacker
 - Tape Input/Output
 - Tube Input/Output
 - Tray Shuttle

WhisperTeach™ (accurate to 15 microns) reduces set-ups from 45 minutes with a skilled technician to 7 minutes (83% time savings). Exclusive to BPM's Software

CyberOptics™ on-the-fly vision alignment for high reliability and high production throughput

Four 9TH Gen sites with Vector Engine and BitBlast provides full universal support at incredible speeds for up to 16 sockets



BPM 3910 Specifications

Pick & Place System

Handler Throughput:	Up to 1,432 Devices per Hour (with vision centering)
Component Handling Range:	0402 to 240-pin QFP
Machine Dimensions:	Length 127cm, width 61cm, height 137cm
Machine Net Weight:	195.45 kg
Shipping Dimensions:	Length 162cm, width 96cm, height 177cm
Shipping Weight:	309.09 kg
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

System Requirements

Air Pressure:	80 psi (5.56 bars) minimum
Air Flow:	2.0 scfm (50.1L/min)
Operational Temperature:	55° to 90° F (13° to 32° C)
Relative Humidity:	30-80%
Minimum Floor Space:	183cm x 107cm
Input Line Voltage:	100-130/200-260VAC
Input Line Frequency:	50/60 Hz
Power Consumption:	1KVA

Socket Options

Socket Card:	Including, but not limited to, CSP, QFN, µBGA, BGA, MLF, SOIC, LAP, TSOP, LCC, PLCC, QFP
Other Options:	Receptacle Socket options

Programming Hardware

Architecture:	9 th Gen Concurrent Programming System with Vector Engine Co-Processor
Programming Sites:	2 to 4 sites, 1 to 4 sockets per site, 16 sockets max
Calibration:	Annual, may be performed on site
Diagnostics:	RAM, communications, calibration, timing, LEDs, fans, pinoe, 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
Communications:	USB 2.0
Data Pattern Broadcast:	25MB per second
Firmware Updates:	Software automatically performs firmware download

Pin Drivers

Quantity:	240-pins standard, per site
Vpp Range:	0V to 25V
Ipp Range:	Up to 1.2A total
Vcc Range:	0V to 13V
Icc Range:	0-2A
Rise Time:	350 ps
Protection:	ESD, overcurrent shutdown, power failure shutdown
Independence:	Pin drivers and waveform generators are fully independent and concurrent on each site
Digital Range:	0-4.5V
Clocks:	800kHz to 200MHz

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 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: Laser Marker
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Warranty

Hardware:	One Year Hardware Warranty
Software:	One Year Software Support

See the video at
bpmmicro.com/3910-2



1,432 DPH
BPM 3910
Production Programmer

Powerful Automated Device
Programmer in a Small Package

Our newest production programmer
with a smaller footprint.

Perfect for clients progressing to automation.
Ideal for high-volume and high-mix production.

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



9th 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