1,410 DPH

BPM 4900

Production Programmer

Delivers Reliable, Fast, and Accurate Production Programming Performance

High throughput, fast changeover, and extreme flexibility, the 4900 delivers the quality and reliability customers count on, for the most demanding production requirements

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
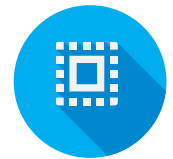
9TH Generation Site Technology

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

BPM 4900

High programming speed for MCUs, eMMC HS400, NAND, NOR and Serial Flash
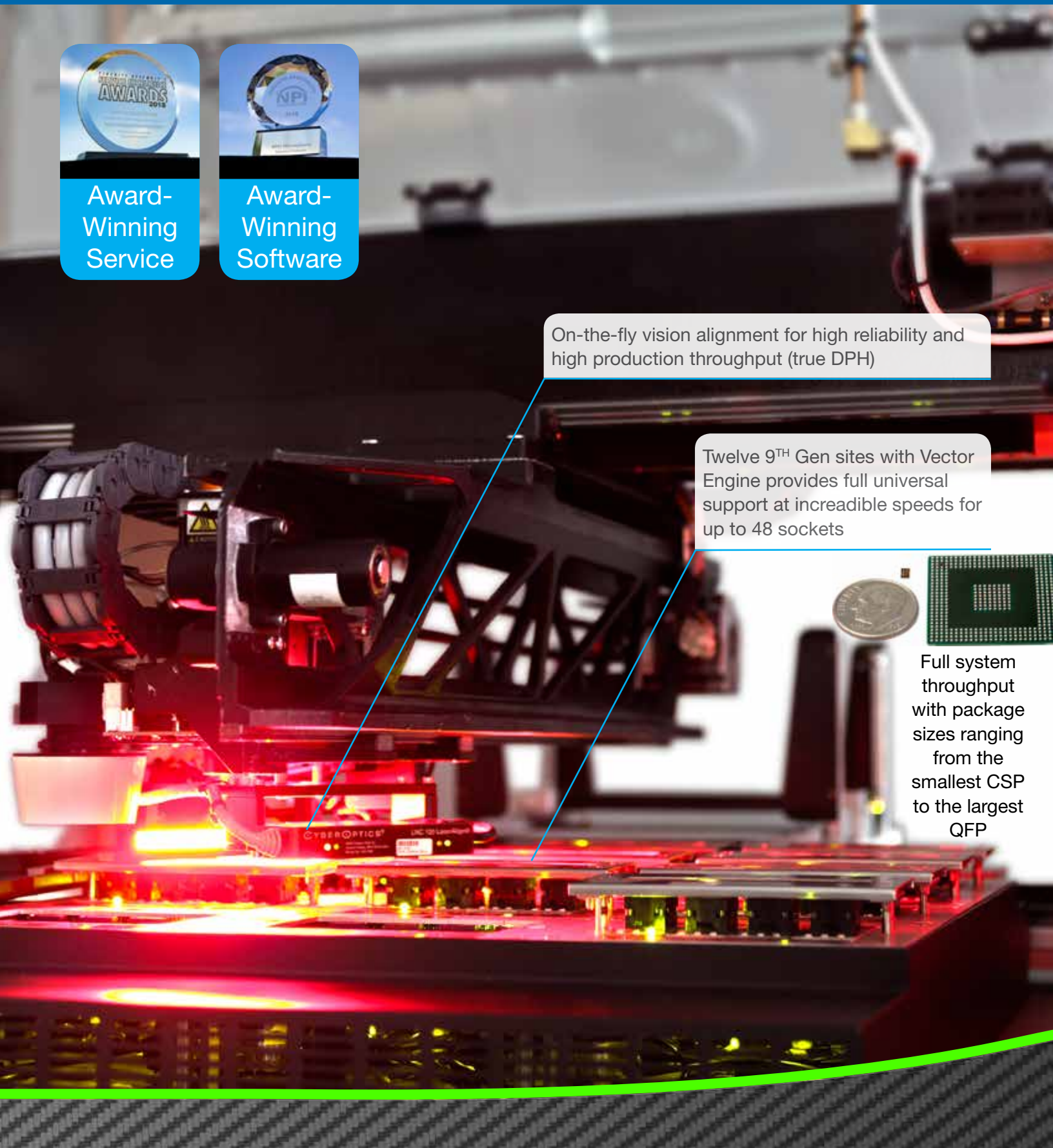
Award-Winning Service

Award-Winning Software

On-the-fly vision alignment for high reliability and high production throughput (true DPH)

Twelve 9TH Gen sites with Vector Engine provides full universal support at increadible speeds for up to 48 sockets

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

Up To
1,410
Devices per Hour

4900

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 4900
• Raydiance™ Laser Marker
• Tray Stacker
• Tape Input/Output
• Tube Input/Output
• Tray Shuttle

NINTH
9TH GEN
GENERATION

VECTOR
ENGINE
CO-PROCESSOR ®

4900
Automated Programming System

BPM 4900 Specifications

Pick & Place System

Handler Throughput:	Up to 1,410 DPH
Component Handling Range:	CSP8 to 240-pin QFP
Laser Alignment:	Component range - 0204
Placement Accuracy:	± 0.0012" (0.03mm)
Placement Repeatability:	± 0.0024" (0.06mm)
Placement Force:	60-600 grams positional control
Machine Dimensions:	Length 106.6cm, width 106.2cm, height 106.2cm
Machine Net Weight:	405.91kg
Shipping Dimensions:	Length 122cm, width 122cm, height 175cm
Self Test:	Power supplies, CPU, memory, X, Y, Z, theta motion systems, spindle run-out and height, vacuum system

Positioning System

X-Y Drive System:	High-performance stepper motor driven precision belt
X-Y Encoder Type:	Linear optical scale
X-Y Axis Resolution:	0.0002" (0.0050mm)
X-Y Axis Maximum Velocity:	30"/sec (76cm/s)
Z Drive System:	High-performance stepper motor driven lead screw
Placement Accuracy:	90µ@ 4 sigma, 67µ@ 3 sigma
Z axis Resolution:	± 0.001" (0.025mm)
Z axis Repeatability:	± 0.0015" (0.038mm)
Theta Drive System:	Precision stepper motor-driven direct anti- backlash twin gear assembly
Theta Axis Resolution:	0.015°
Theta Axis Repeatability:	+/- 0.2mm

Pick & Place System

Handler Throughput:	Up to 1,410DPH
Component Handling Range:	CSP8 to 240-pin QFP
Laser Alignment:	Component range – 0204
Placement Accuracy:	± 0.0012" (0.03mm)
Placement Repeatability:	± 0.0024" (0.06mm)
Placement Force:	60-600 grams positional control
Self-test:	Power supplies, CPU, memory, X, Y, Z, theta motion systems, spindle run-out and height, vacuum system

Socket Cards

Support for existing FX and FVE socket modules. Universal 1900/2900 socket cards with 144 universal pins. Available Socket Cards including, but not limited to, standard PLCC, CSP, BGA, µBGA, SOIC, QFN, MLF, LAP, QFP, TSOP, LCC, SDIP, SIMM Other Options: Advanced Feature Software, simple and complex serialization, CJob, Monitor and CJob Control (API), Receptacle Socket options

Dimensions

Machine Dimensions:	Length 106.6cm, width 160.2cm, height 106.2cm
Machine Net Weight:	405.91kg
Shipping Dimensions:	Length 122cm, width 122cm, height 175cm

Programming Hardware

Architecture:	9TH Gen Concurrent Programming System with Vector Engine Co-Processor
Programming Sites:	Up to 12 sites, 2 to 4 sockets per site
Calibration:	Not required for 9TH Gen
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
Memory:	256GB per site, upgradeable to 512GB
Communications:	USB 2.0
Data Pattern Broadcast:	25MB/s
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:	4ns
Protection:	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 64MHz

Peripheral Options

Peripherals:	X-Stream™ Tape Feeder, Tape Output, TS-1500 Tray Stacker, Stationary Tray, Tube, 3D Inspection, Raydiance™ Laser Marker

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 Systems:	Windows 7, 64-bit
Network Interface:	Gigabit Ethernet

Warranty

Hardware:	One Year Warranty
Software:	One Year Support

See the video at
bpmmicro.com/4900

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MICROSYSTEMS
Setting the Standard in Device Programming

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Made in the USA
with globally-sourced components

Certificate Registration
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