



1,708 DPH

BPM 4910

Production Programmer

Delivers Reliable, Fast, and Accurate Production Programming Performance

High throughput, fast changeover, and extreme flexibility, the 4910 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



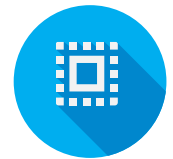
9TH Generation Site Technology

Future-proof investment with true universal site technology



CyberOptics™

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



WhisperTeach+

Fully-Automated XYZ Teach—reduces setup time per job and improves accuracy and quality

BPM 4910

First Fully-Automatic Production Programming System in the World featuring BPM's Patent-Pending WhisperTeach+

Faster and Easier— The 4910

BPM is excited to launch the latest update to our flagship product— the 4910. It's faster and even easier to operate than any of our previous systems with accelerated on-the-fly alignment, optimized motion, and the most autonomous "Teach" yet. We've managed to close the loop on fully-automated teach— making job set-ups faster and more accurate than humanly possible. There's nothing like it in the marketplace. You can only find it at BPM.

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

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



Award-Winning Service



Award-Winning Software

Up To
1,708
Devices per Hour

4910



WhisperTech+ provides automated XYZ & Theta, and each pick/place location. Setup is faster and more accurate, reducing teach time as much as an hour per job



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

Device Programming: Faster, Easier and More Profitable

Optional Automated Peripherals to maximize/customize your 4910

- Raydiance™ Laser Marker
 - Tray Stacker
 - Tape Input/Output
 - Tube Input/Output
 - Stationary Tray
 - 3D Inspection

Maximum flexibility in a production environment; Faster set-ups makes it nimble; multiple sites makes it especially effective for longer program times. Built to deliver three shifts, seven days a week, at maximum ROI



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



4910

Automated Programming System

BPM 4910 Specifications

Pick & Place System

Handler Throughput:	Up to 1,708 Devices per Hour (with vision centering)
Component Handling Range:	0402 to 240-pin QFP
Machine Dimensions:	Length 106.6cm, width 106.6cm, height 136.0cm Height 190.5cm with Light Tower
Machine Net Weight:	406 kg
Shipping Dimensions:	Length 122cm, width 122cm, height 175cm
Shipping Weight:	630 kg
Safety Standard:	CE compliant
Self-test:	Power supplies, CPU, memory, X, Y, Z, Theta motion systems, nozzle run-out and height, vacuum system

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
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%
Input Line Voltage:	220-250 VAC
Input Line Frequency:	50/60 Hz
Power Consumption:	2.5 KVA

Socket Options

Socket Card:	Including, but not limited to, CSP, QFN, µBGA, BGA, MLF, SOIC, LAP, TSOP, LCC, PLCC, QFP
Other Options:	High Insertion Count and receptacle socket options

Programming Hardware

Architecture:	9 TH Gen Concurrent Programming System with Vector Engine Co-Processor
Programming Sites:	1 to 12 sites, 1 to 4 sockets per site, 48 sockets max
Calibration:	Annual, may be performed on site
Diagnostics:	RAM, communications, calibration, timing, LEDs, fans, pinole, 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, Stationary Tray, Tube Input/Output, Raydiance Laser Marker, 3D Inspection
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Warranty

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

WhisperTeach+ Automated Self-Teaching is Patent-Pending



See the video at
bpmmicro.com/4910-2