

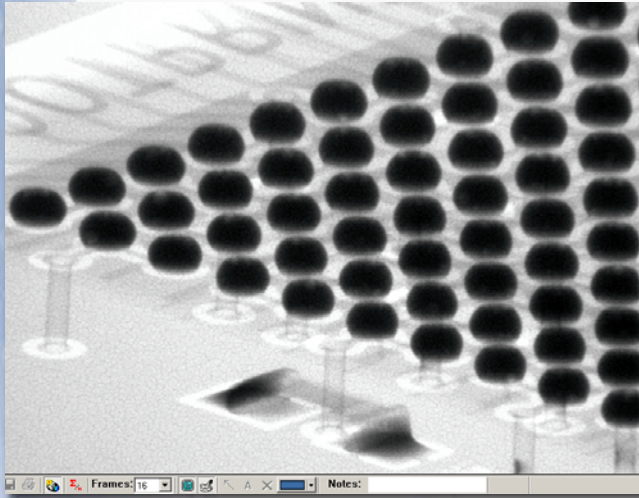
"The Inspection & Rework Specialists"



FocalSpot X-Ray Image Processors

VIP and VIP Plus are easy-to-use Image Processors, designed to provide both essential and advanced features required to perform x-ray inspection analysis and fault detection.

VIP Features



VIP is a Windows™ based Standard Image Processing software that provides a comprehensive set of tools for x-ray image processing, visualization enhancement, analysis and measurement of PCB parts, components and electrical interconnections.

VIP increases productivity by enhancing x-ray images for improved interpretation of x-ray signatures and provides standard tools to assist with failure analysis and analysis reporting tasks.

Features:

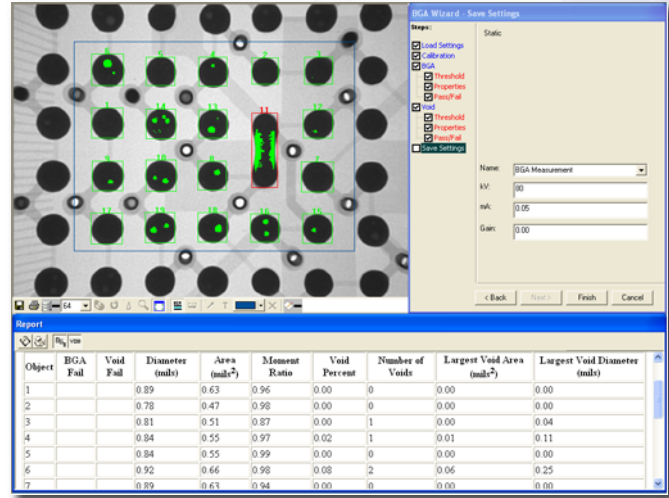
- Save to file
- Print
- Live image
- Frame averaging (0-64)
- Integrate image
- Full-screen mode toggle
- Arrow and text annotation tools
- Text and arrow color selector
- Zoom view (2X digital magnification)
- Point-to-point measurement tool
- Sharpen filter

About FocalSpot

FocalSpot, Inc. is recognized worldwide as a leader in the design and manufacture of affordable high-quality x-ray inspection systems; providing Inspection and Rework solutions for Electronic Manufacturers worldwide. FocalSpot is also a regional distributor and value-added reseller for DEN-ON BGA/SMT rework solutions; Optilia BGA/SMT video microscopes; and First Article AOI Inspection Systems; providing sales, service and support in North/South America, Canada and Mexico.



VIP Plus Features



VIP Plus is a Windows™ based Enhanced Image Processing software that provides additional modules for complex image, data and failure analysis of area array components.

VIP Plus delivers all of the features found in Standard VIP software, in addition to flexible BGA visualization, measurement and analysis modules for enhanced analytic capabilities.

Verifier Plus Modules:

- BGA analysis module
- Bump measurement module
- Void measurement module
- Pass/fail criteria module
- Bump shape determination

Object	BGA Fail	Void Fail	Diameter (mils)	Area (mil ²)	Moment Ratio	Void Percent	Number of Voids	Largest Void Area (mil ²)	Largest Void Diameter (mils)
1			40.78	1306.22	0.98	0.10	1	125.16	12.62
2			39.86	1247.61	0.94	0.06	1	79.47	10.06
3			41.82	1373.77	0.94	0.10	1	141.05	13.40
4			39.65	1234.70	0.91	0.00	0	0.00	0.00
5			42.14	1394.63	0.95	0.11	1	151.98	13.91
6			40.30	1275.43	0.82	0.00	0	0.00	0.00
7	X		42.45	1415.48	0.99	0.15	1	216.54	16.60