

Verifier (FSX-080)

Standard, X-Ray Inspection System

The Verifier (FSX-080) is a low-cost solder quality "QuickCheck™" verification tool for manufacturing defect detection and rework verification applications. The Verifier provides continuous real-time x-ray inspection for manufacturing quality assessment and rework operations. Systems are CE, CSA and TUV certified and exceed all safety requirements set forth by CDRH and FDA regulations.

Key Features

The Verifier x-ray inspection system is an ideal entry-level x-ray inspection system and complementary "Quickcheck™" rework solder verification tool. The Verifier's primary role is to provide basic failure analysis (bridging, missing, poor reflow shape and large voids) and real-time quality inspection of rework operations. Find defects quickly and easily; an excellent value at an affordable price.

- Easy-to-use
- Extremely low maintenance
- "Best in Class" Performance
- Flexible sample handling and manipulation
- Large field-of-view (for fast inspections)
- Small 32"x 34" footprint. Easily rolled wherever needed (production area, proto lab, rework, etc.)

***Safe:** The Verifier exceeds all safety and radiation protection requirements set forth by CDRH and FDA regulations. Systems are CE, CSA & TUV certified.

Easy-to-Use Controls

Intuitive controls and indicators for On/Off, Gain, Zoom, Focus and Interlock functions. Operators can be trained quickly and easily.



Motorized Tilt/Rotation Fixture

Specifications

Hardware

- Footprint: 32"x 34"
- Board handling: up to 16"x 18"
- Angled viewing: up to 70° (360° w/ fixture)
- X-ray source: 80kV, 50 micron Microfocus
- Resolution: >20 lp/mm
- Magnification: 110x
- Field-of-view: up to 40mm
- PC: Intel/ATX mini tower w/ printer & CDRW
- Flat panel display: 19" (20" optional)
- Network ready: Ethernet 10/100 base-T

System/Image Processor Software

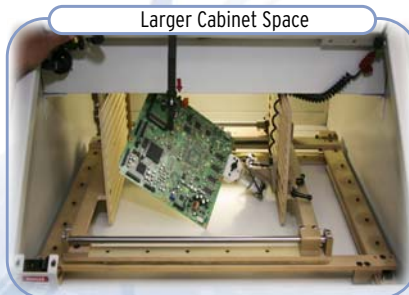
- **Operating System:** Windows™ XP Pro
- **Image Processor:** Verifier VIP (standard)

Optional Image Processors

- VIP Plus Enhanced Image Processor
- VIPx Advanced Image Processor
- * See FocalSpot VIP Series Datasheet for details

Flexible Sample Holder

- **Sample Door:** 28" wide, for easy load/unload
- **Manual X/Y sample positioner:** 16"x 18"
- **Angled Viewing:** 0-70° (standard fixture)
- **Rotation Fixtures:** Manual and Motorized options for 360° rotation of small boards.

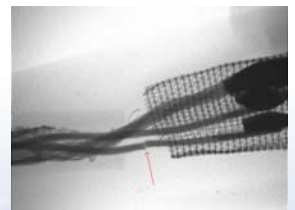
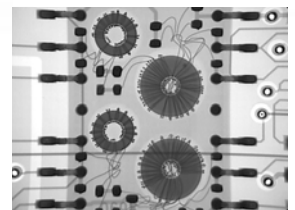
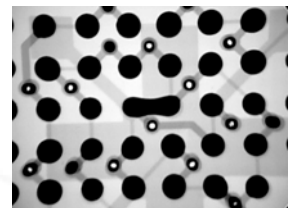
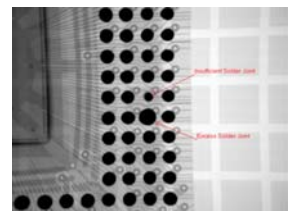
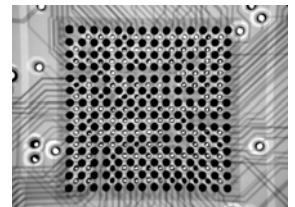


Larger Cabinet Space

Extended Height provides increased oblique viewing!



Sample Images



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.

Verifier Series, Portable X-Ray Inspection Solutions

The Verifier, Verifier Plus and Verifier HR X-Ray Inspection Systems are portable, fit through a standard doorway and with exceptional performance and value. Ideal for prototyping, failure analysis, manufacturing process validation, rework verification and more...

Verifier Series X-Ray Inspection Systems

Verifier Series	Features Comparisons		
System Features	Verifier FSX-080	Verifier Plus FSX-075	Verifier HR FSX-090
System Hardware			
X-Ray Source	80kV	75kV	90kV
Magnification	110X	220X	715X
Spot Size	<50 micron	<33 micron	<5 micron
Resolution	>20 lp/mm	>30 lp/mm	>40 lp/mm
Field-of-View	>40mm	>70mm	>40mm
Standard 120VAC Power	Standard	Standard	Standard
Standard 240VAC Power	Optional	Optional	Optional
IP Computer Hardware			
Flat Panel Display (Monitor)	19"	19"	19"
Windows© XP, Operating System	Windows© XP Pro	Windows© XP Pro	Windows© XP Pro
Image Processor Options			
VIP	Standard	Standard	Standard
VIP Plus	Optional	Optional	Optional
VIPx	Optional	Optional	Optional
Board Handling			
Maximum Board Size	16x18"	16x18"	16x18"
X/Y Board Manipulation	Manual	Manual	Manual
Tilt	Manual	Manual	Manual
Rotate	Optional	Optional	Optional
Tube-Z1	N/A	N/A	Optional
Detector-Z2	N/A	N/A	N/A
Inspection Capabilities			
Solder Joint Quality (BGA, Leaded)	●	●	●
Bridging	●	●	●
Voiding	●	●	●
Opens	●	●	●
Package Inspection (wire bonds)	○	◐	●
Bare boards (Inner layers, traces, vias)	○	◐	●
Subtle Defect Inspection	○	◐	●
Flip Chip Capable	○	◐	●

Verifier Series Portable, X-Ray Inspection Systems

