

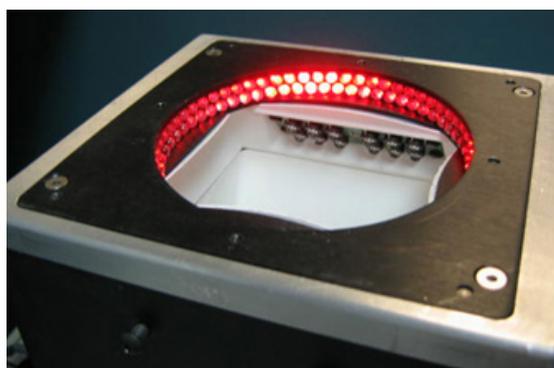
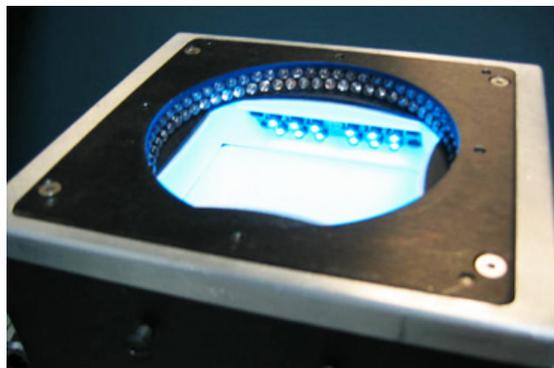
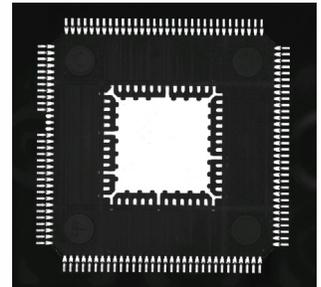
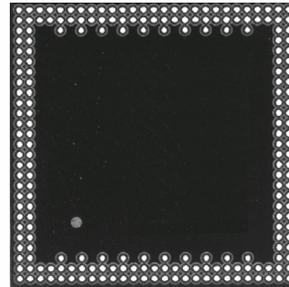
3DX™ High-Speed 3D Vision

On-the-fly 3D inspection module.

High-Definition. Fast. Innovative.

The **3DX Series** is a major advance in semiconductor inspection technology. Coherix provides high-speed, in-line inspection products to the electronics and semiconductor industries, eliminating the need for handlers to stop parts to inspect them. This solution streamlines the process, increases throughput and enhances accuracy.

3DX measures semiconductor packages optically on-the-fly, setting a new standard of throughput. This vision inspection system measures 3D characteristics of up to 70,000 parts per hour! 3DX incorporates a state-of-the-art LED lighting system with multiple cameras and Coherix's proprietary i-Cite™ software. This total package creates the fastest, most advanced and easiest-to-use 3D inspection solution available.



- **3D high-definition, multi-camera triangulation technology**
- **Snapshot area measurements - no lasers, no line scanning**
- **High UPH**
- **Multi-spectral LED strobe lighting**
- **Simultaneous multi-part & ROI capability increases throughput**
- **Leaded, BGA & QFN package styles supported (5S QFN option available)**
- **No hardware change-over required between package types**
- **Structured lighting option for true package warpage & standoff measurements**

Coherix®

3DX™ High-Speed 3D Vision

On-the-fly 3D inspection module.

Technical Specifications

Field of view:	50 x 50 mm
Camera resolution:	4 MP
Multi-part inspection:	Yes
Exposure time:	50 μ s
Image trigger:	XY dual internal strobe
Inspection motion:	Variable to 300 mm/sec
Region of interest:	User settable – full range
Illumination:	Solid state LED w/ internal strobe control
Module weight:	11.2 kg (24.6 lbs)
Power consumption:	20 watts @ 100-240 VAC internal regulation

Typical BGA/CSP Accuracy

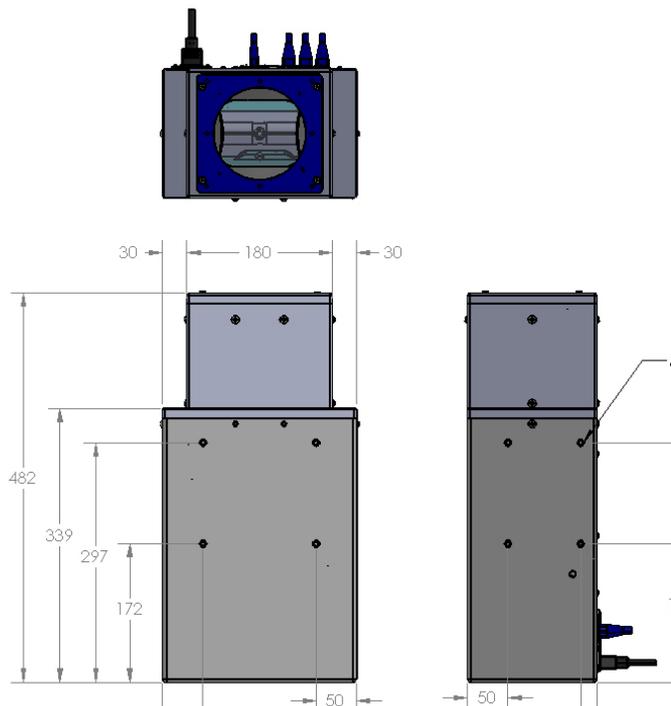
Ball co-planarity:	6 μ m
Ball pitch:	5 μ m
Ball offset:	5 μ m
Ball height:	8 μ m
Ball width:	8 μ m
Grid to package offset:	8 μ m
Warpage:	6 μ m

Typical Leaded Accuracy

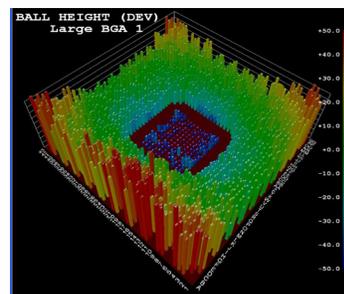
Leaded co-planarity:	6 μ m
Lead pitch:	5 μ m
Lead slant:	5 μ m
Body standoff:	8 μ m
Lead width:	6 μ m
Length deviation:	6 μ m
Lead span:	6 μ m
Terminal dimension:	10 μ m

Typical QFN Accuracy

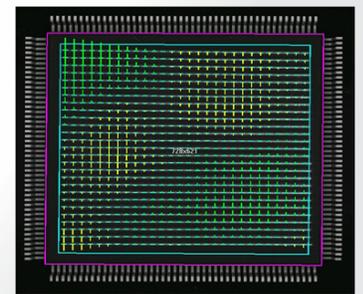
Body X/Y:	12 μ m
Pad size:	12 μ m
Pad offset:	10 μ m
Grid offset:	12 μ m
Pad pitch:	8 μ m
Parallelism:	0.75 degrees
Orthogonality:	0.75 degrees



*Dimensions in millimeters



3D absolute ball height



Surface warpage

Coherix®