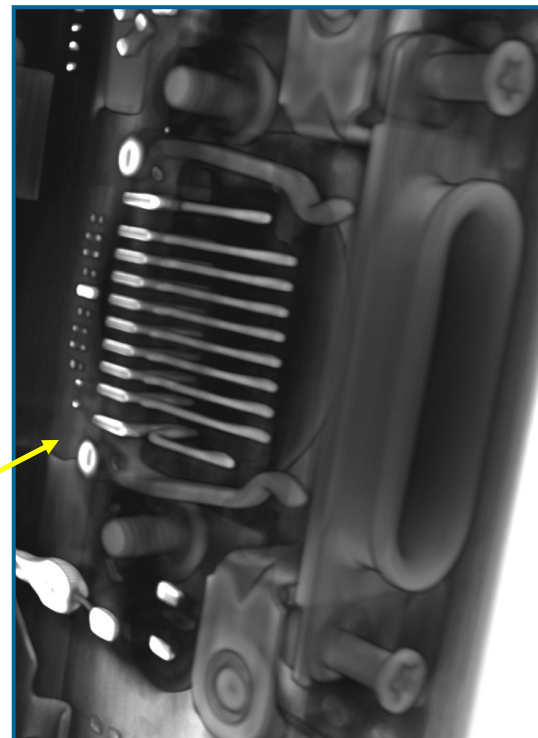


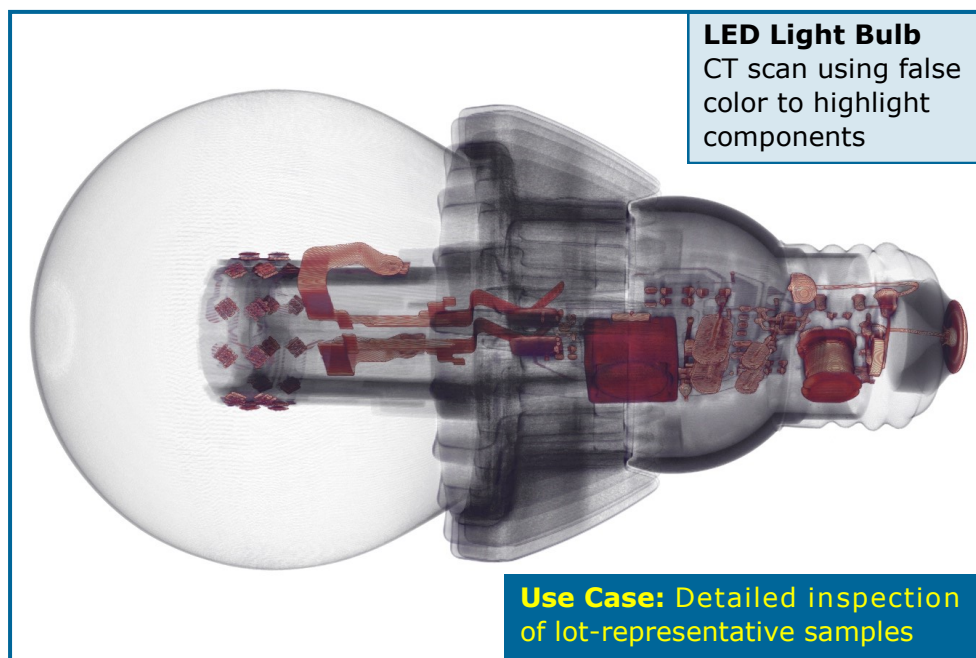
**Smart  
Phone CT**  
Scanned and  
digitally  
sliced open



Use Case: Failure Investigations

### State-of-the-Art Digital X-Ray Technology

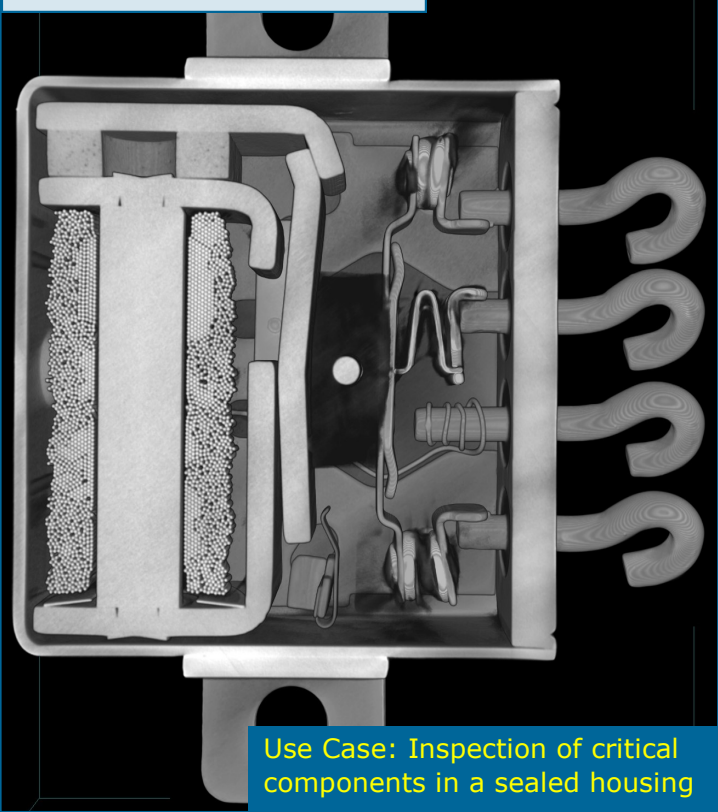
- Multi-axis, high resolution digital x-ray system
- Advanced 3D CT (Computed Tomography)
- Real-time digital X-Ray
- 225kV microfocus tube with focal spot to under 6 microns
- 450kV tube with 400 microns and 1mm dual focal spots
- System can inspect a variety of item shapes, sizes, weights and materials
- Images are viewed on computer monitor, digitally rotated and sliced on x, y or z axis
- X-5000 built by North Star Imaging



**LED Light Bulb**  
CT scan using false  
color to highlight  
components

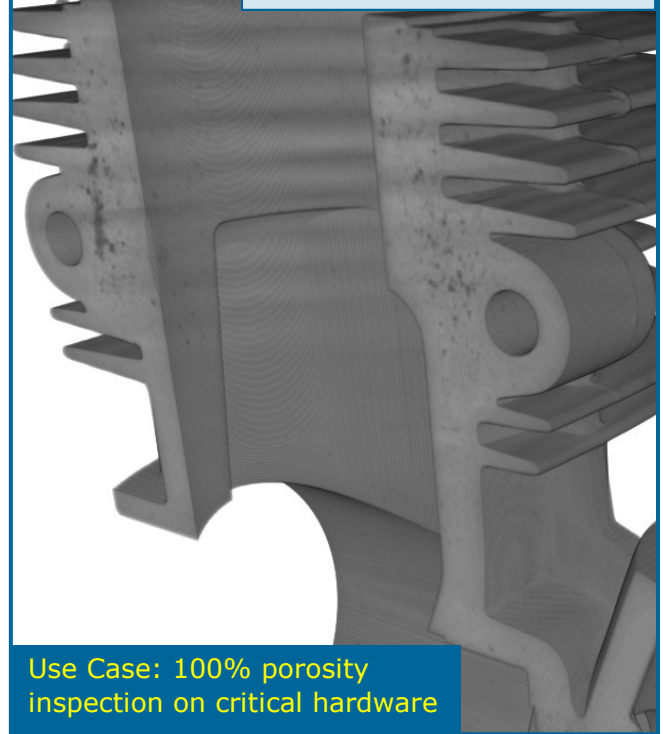
Use Case: Detailed inspection  
of lot-representative samples

**Relay** showing magnetic coil details and mechanical parts.



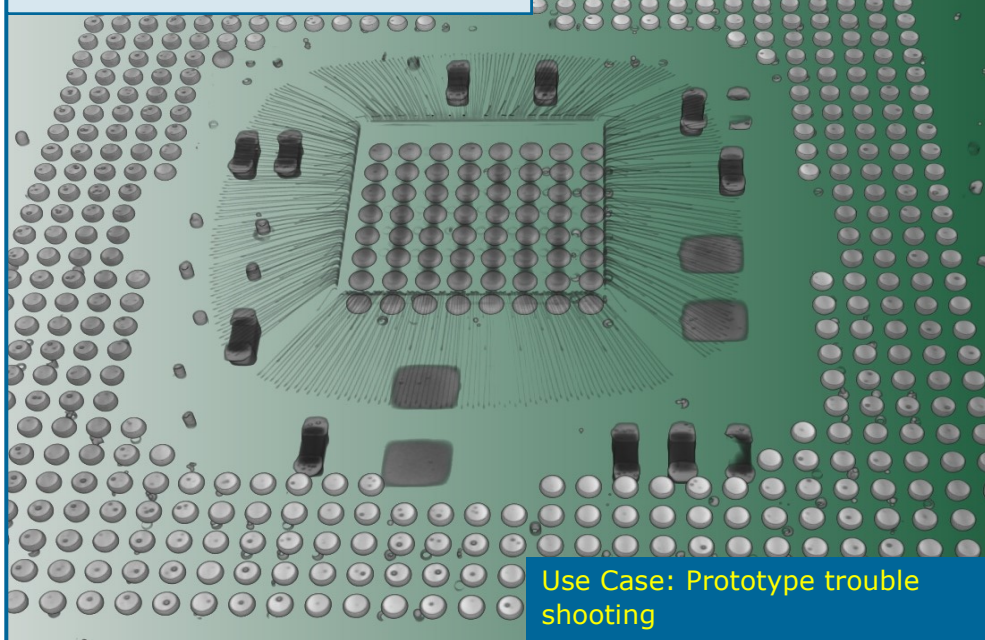
Use Case: Inspection of critical components in a sealed housing

**RC Engine** digitally sliced open to inspect porosity



Use Case: 100% porosity inspection on critical hardware

**Ball Grid Array** on computer chip with details of voids and trace wires.



Use Case: Prototype trouble shooting

## Use Cases for Industrial CT/X-Ray Inspection

- Product quality compliance/screening
- Failure Analysis
- Weld inspection, including penetration & flaw detection
- Inspection for voids in aluminum and steel castings & molds
- Electronic component & device inspection
- First Article Inspection
- Assembly verification
- Crack detection and propagation
- Density & porosity variation
- Plastic welding/bonding
- Research & Development
- Wall Thickness Analysis