HaikuTech
Smart Factory 4.0

AI-based Visual Inspection system

µNET Inspector 1.6

Intelligent detection of microscopic defects

- High scan speed: < 10 seconds for a 1.6 gigapixel image
- Flexible vacuum table for different product types: sheets, hard plates
- Fast change over: one lens for different object sizes
- Software: fast custom AI-based algorithms, simple operation
- High-speed line scan cameras with 3.5 µm pixel size
- High-end inference platform with 90 TFLOPS
- Automation available for in-line applications

Self-learning Neural Network

Defect Detection & Sorting system
µNET Inspector 1.6

Haiku Tech introduces a vision inspection machine with an outstanding performance/speed ratio. Self-learning AI software in combination with high quality components allows new microscopic scale full object inspections at speeds previously impossible.

The machine comes with a linear motor X-Y vacuum table that transports sheets or plates to the high magnification line-scan cameras. The inspection information is processed by an intelligent AI server within the 20 ms range per image. The machine can run automatically in-line with production equipment by addition of product handling robots. The state of the art AI software achieves sophisticated standards of reliability and repeatability at a high inspection speed. The machine's self-learning algorithm HiQtensor 1.6 achieves low inspection failure rates and teaches itself how to detect the defects of the future. A user interface displays the location of defects for corrective actions. A microscopic on-screen 2nd opinion check by operators or engineers is available in the software. The smart system allows to increase the yield and quality output of your factory.
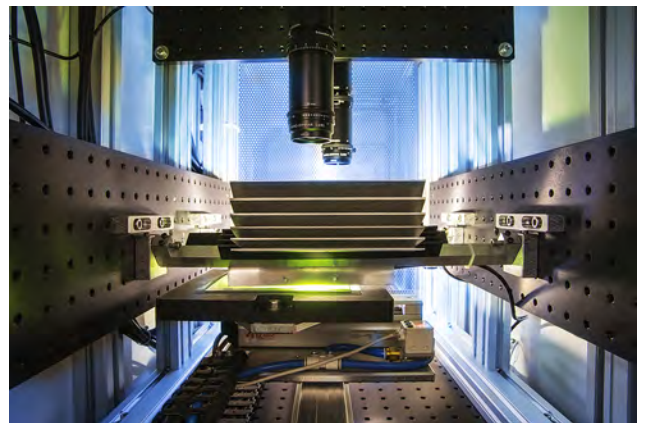
Main Inspection Features
- **Ceramic Defects**
- **Chipping, Crack**
- **Blister**
- **Crater**
- **Burst**
- **Pin Hole**
- **Scratches**
- **Surface Contamination**
- **Discoloration**
- **Hairs**

Inspection of SOFC, LTCC and other Ceramic products

Specifications µNET Inspector1.6

Field of scanned view:	150 mm by 150 mm
	200 mm by 200 mm
Cameras:	2x 8000 pixel line scan cameras
Image collection speed:	<8 s
Image size:	max 2 GPixel
Pixel size:	3,5 or 4,9 µm
Min. defect size	10 µm
Defect detection speed:	appr. 10 s
GUI:	touch panel and HMI screen with keyboard/touchpad
AI tensor performance:	>90 TFlops
Software:	HiQtensor 1.6
Safety:	CE
Electrical:	3 x 400 Vac with N, 50/60 Hz
Fuse; Power	32A; 8 kW
UPS:	30 minutes for server and AI
Air:	200 NL/min, 6 MPa
Dimensions:	W 74 cm, D 102 cm, H 178 cm
Weight:	350 kg

www.haikutech.com

HaikuTech
Multilayer Ceramics

Americas
HaikuTech Inc.
11025 NW 29th Street,
Doral, FL 33172
United States of America
Phone:+1-305-463-9304
Fax:+1-305-463-8751

Europe
HaikuTech Europe B.V.
Spoorweglaan 16
6221 BS Maastricht
The Netherlands
T: +31 (43) 457-8080
F: +31 (43) 457-8053

Greater China
HaikuTech/N-Tech Corp.
14F., No.35, Boai Rd.
Zhongzheng Dist.
Taipei City 10044
Taiwan
Phone: + 886-2-23710187

E-mail: sales@haikutech.com