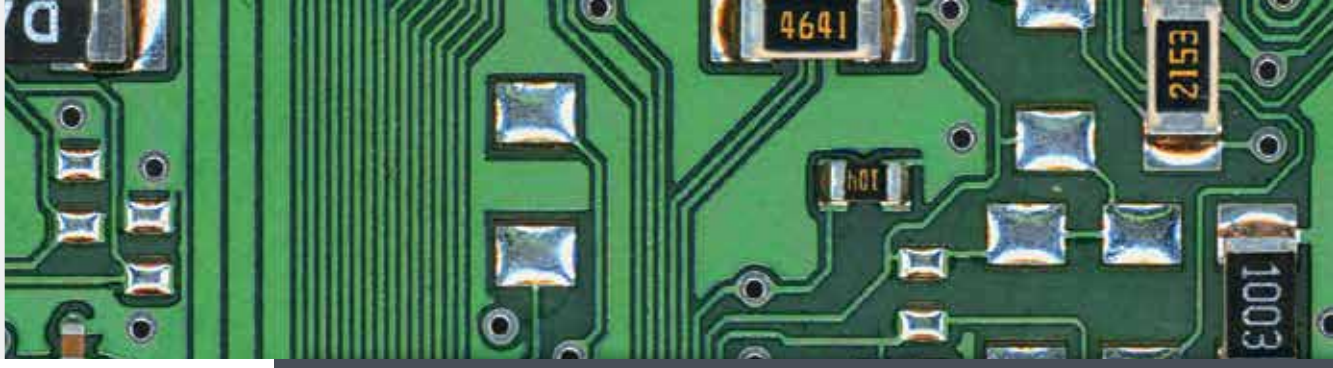


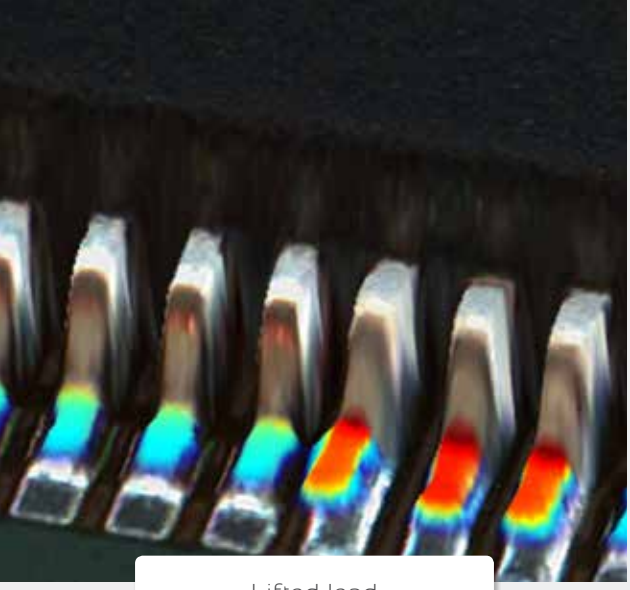
K 3D SERIES

Shift defect coverage boundaries

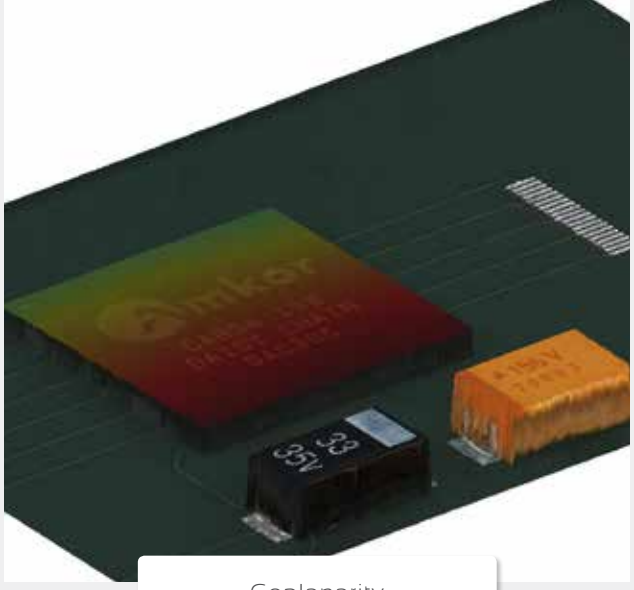
3D AOI

Actual images from K

VI TECHNOLOGY®



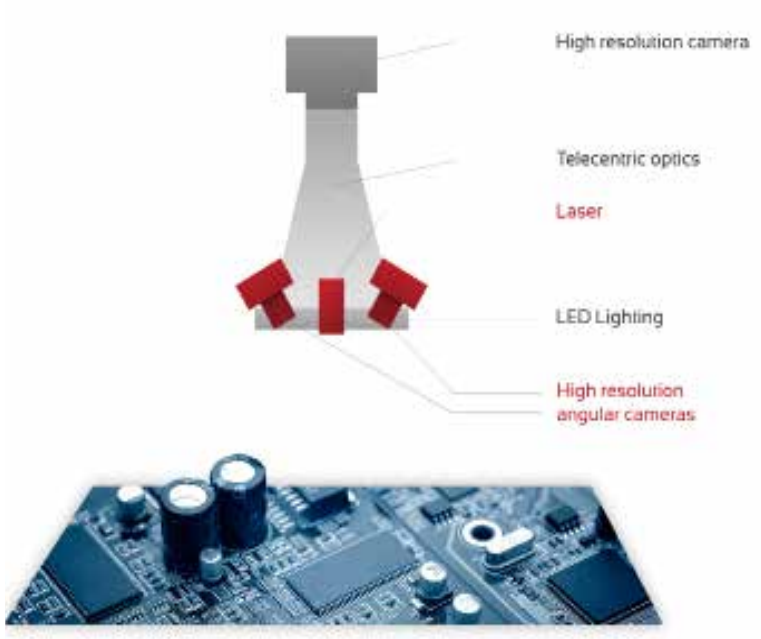
Lifted lead



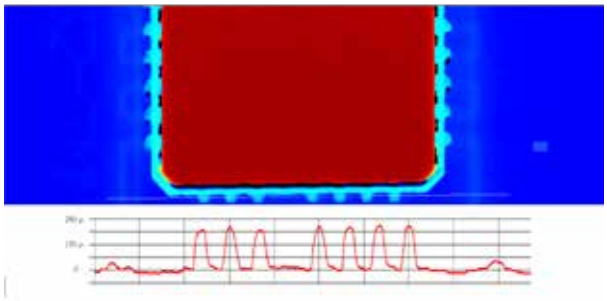
Coplanarity

Tomb

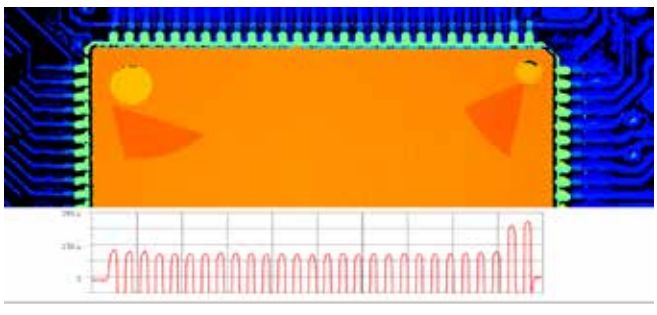
A powerful 3D to expand proven 2D technology



K Series^{3D} is the 3D successor of the production proven K Series with 3 500 systems sold in 40 countries. Using proprietary shadow-free 3D sensor developed and manufactured in Europe, K Series^{3D} shifts defect coverage boundaries. This new technology is compatible with existing K Series library and is available as an upgrade to existing K Series systems for 5K models or higher.

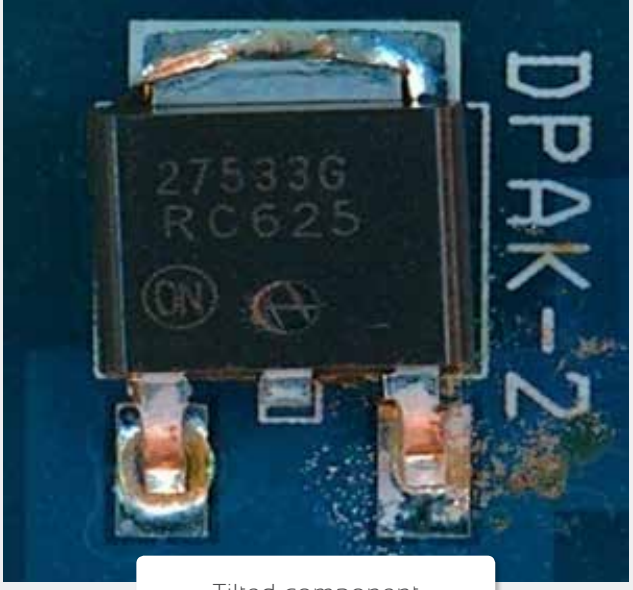


QFN Solder joint presence/absence

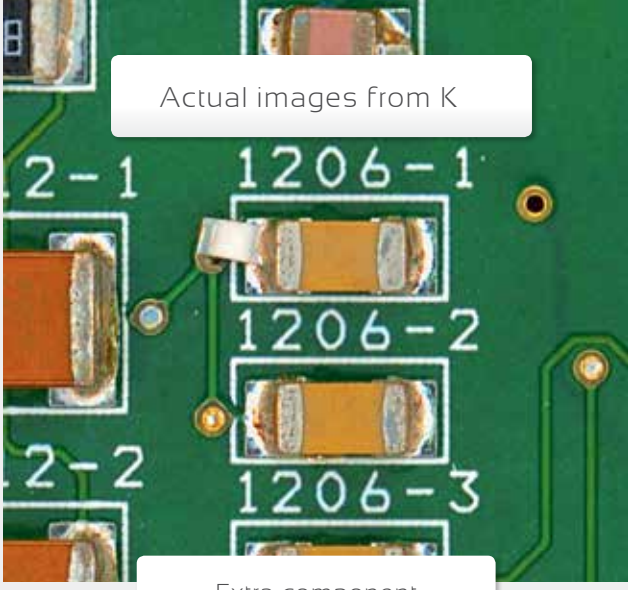


QFP Lifted leads

stone



Tilted component



Actual images from K

Extra component

Complete defect coverage

Coverage

Comprehensive defect coverage

Component body

Missing component
Misplacement (X, Y, Z, θ)
Tombstone
Polarity
Coplanarity
Upside-down component
OCR, OCV

Solder joint

Missing joint, solder excess
Bridging
Lifted lead
Head-in-pillow

Performance

The choice of Industry leaders

Up time superior to 99.5%

Very low false calls and escapes rate down to 50 ppm in production

X, Y GRR << 4% on 01005

Inspection time up to 100 cm/s

Fast programming time

Compatibility with existing K Series libraries

LibraryPro to guarantee performance over time

Full program portability

GPU based processing

Accuracy

High precision optical metrology system

Shadow-free 3D Sensor

12-bit 8 M Pixel CCD Camera

Telecentric Lens

LED lighting with holographic diffuser

High precision linear motors, 1 µm repeatability, with linear optical encoders

X,Y resolution 20 µm

Z resolution 1 µm

25 mm range reconstruction

Geometric pattern matching

Specifications

	5K 3D	8K 3D	9K 3D
Inspection technology			
3D Sensor	Blue laser (*) with 2 angular cameras		
Camera	8 M Pixel, 12-bit CCD		
Optics	Telecentric lens		
Field of view dimensions	61.1 x 44.9 mm² (2.40" x 1.76")		
Lighting colors	White, Red, Blue		
Lighting types	Axial and peripheral LED with holographic diffuser		
Components inspected per hour	480 000		
System			
Operating System	WINDOWS 7, 64-bit		
Processor	Intel Core i7 8-Core, 32 GB memory		
Storage capacity	500 GB SATA3		
PCB positioning	Board and panel fiducials		
Motion & control	Linear motors with optical encoders		
Software Suite			
Vision integrated software suite	Vision3D		
Vision library	Standard based on JEDEC packages		
Vision Offline repair software	Standard		
Vision Offline programming software	Optional		
Offline programming software	SIGMA Import (CAD Data)		
Offline SPC	SIGMA Analysis		
Options			
External barcode reader (1D/2D)	Cognex DM100, compatible with major barcode readers		
Internal barcode reader (1D/2D)	Yes		
Others	Consult us		
PCB handling			
Conveying height		860 - 960 mm	
Minimum PCB dimensions (L x W)	2" x 2" (51x51 mm)	2" x 2" (51x51 mm)	2" x 2" (51x51 mm)
Maximum PCB dimensions (L x W)	21" x 24" (533 x 609 mm)	Dual lane mode 2 x (17" x 12,8") (2 x (432 x325) mm) Single lane mode 17'' x 23,6'' (432 x 600 mm)	21" x 24" (533,4 x 609,6 mm 37" x 24" (option) (939 x 609 mm)
PCB thickness	0.5 - 4 mm	0.5 - 4 mm	0.5 - 15 mm
Maximum PCB weight	3 kg	3 kg	15 kg
Minimum edge clearance	3 mm	3 mm	5 mm
Top clearance		34mm	
Bottom clearance		60 mm	
Facilities			
Interface	IPC-SMEMA-9851		
Power requirements	115 V / 60 Hz / 16 A, 230 V / 50 Hz / 10 A		
Dimensions (W x D x H)	1 110 mm x 1 351 mm x 1 892 mm		
Weight	900 kg		
Operation temperature	15°C to 30°C		
Relative humidity	20-75% (without condensing)		
Network	TCP/IP, RJ45 plug		
Field upgradeability			
K Series ➡ K Series 3D	5K	8K	9K

(*) K3D equipments are class I laser products, according to IEC60825-1:2014-1 standard.
Please refer to specific Vi TECHNOLOGY instructions regarding operation & maintenance.)

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