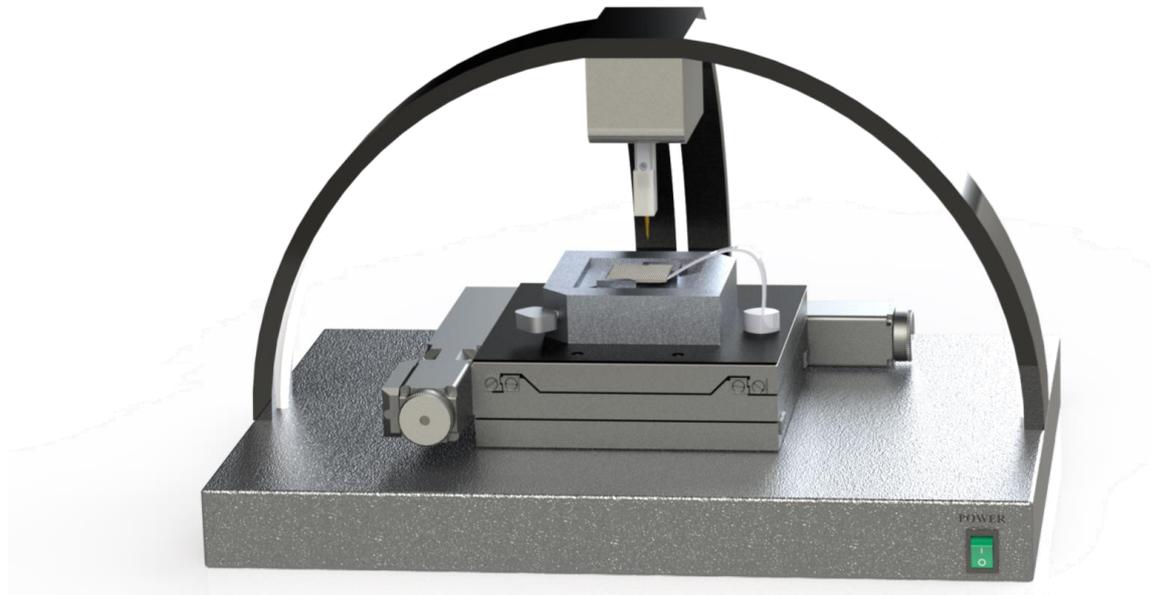




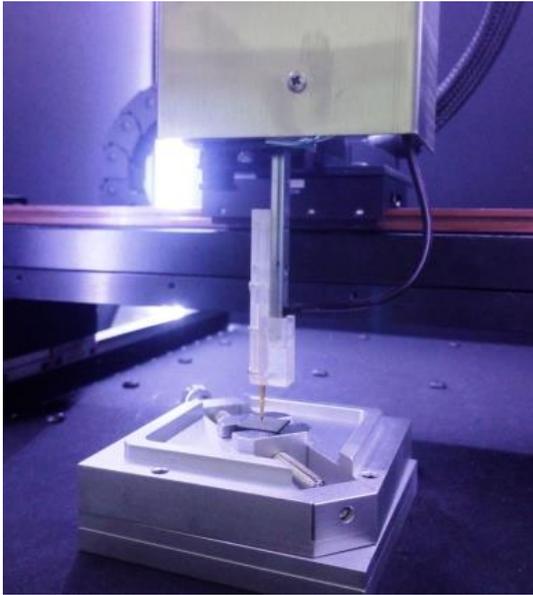
# EyePoint B10



Desktop automatic system

for detecting counterfeit, re-marked or damaged electronic components in BGA packages

# EYEPOINT B10



## A NEW APPROACH

EyePoint B10 is a new approach to the problem of counterfeit electronic component base for responsible applications. EyePoint B10 is a desktop automatic system for detecting counterfeit, re-marked or defective electronic components in BGA packages. EyePoint B10 compares the signatures (unique volt-ampere characteristics) of each output of the investigated chip with the original chip's stored reference data and determines not only about the serviceability of the checked chip, but also about its belonging to the specific series or revision of the original chip.

## DOES IT SOUND FAMILIAR?

Have you ever purchased from an unscrupulous supplier exceptionally expensive FPGA which was not original, or re-marked, restored, killed by static or damaged by non-compliance with storage and transportation requirements?

Such defects are extremely difficult to diagnose by X-ray method, because the geometry of internal structures remains intact. In addition, X-rays are expensive and time-consuming. Culling can be done with a functional test, but such a test requires either sealing / soldering / reballing each component, or making an expensive residue and, in any case, developing software test code unique for each chip as well as using a specialized chip tester.

Optical inspection in many cases makes it possible to recognize a re-labeled or reconstructed BGA chip, but it is powerless in case of internal damage or degradation of the electrical characteristics of the chip.

With EyePoint B10 you will get the results quickly. For example all the pins of the component in the BGA484 package will be checked in less than five minutes. EyePoint B10 uses a flying probe and is able to work with BGA-cases with any existing location and lead pitch without the use of special equipment or manual adjustment.

EyePoint B10 does not need to be programmed. The location of all the pins of the BGA-chip under investigation will determine the built-in fully automatic optical scanner. Comparison with the reference chip will produce built-in automatic signature analysis software.

## MINIMUM OF ACTIONS

You only need to place the chip into the scanner and press the "Start" button. Everything else will be done automatically!

X Instruments LLC  
39270 Paseo Padre Pkwy 631,  
Fremont CA 94538

sales @xinstruments.com  
+1-888-947-6388



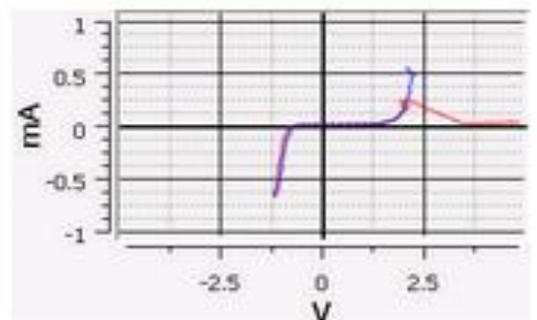
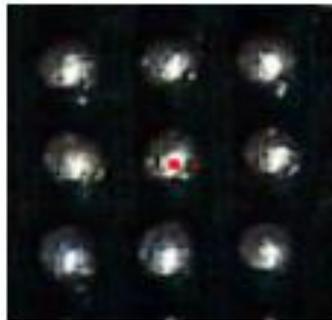
EyePoint B10 will be useful to an engineer involved in the development and / or repair of sophisticated electronic equipment for responsible applications:

For example, it is a good idea that the BGA component is workable and was not damaged during the reballing process before sealing it.

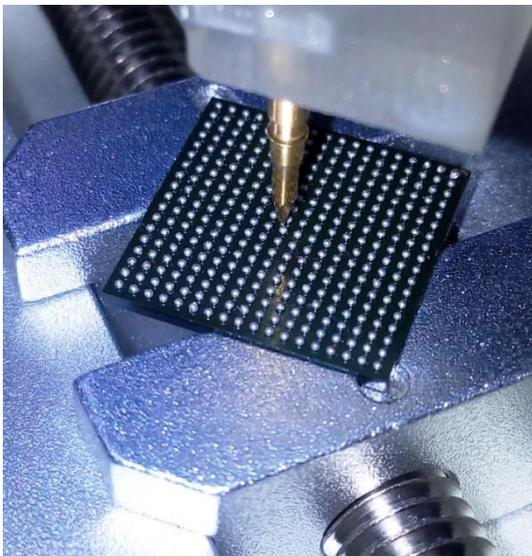
All you need to do is to place the suspicious component in EyePoint B10, select the appropriate good component from the EyePoint B10 database and start the scan.

RESULTS WILL BE READY IN JUST FEW MINUTES LEAVING NO PLACE FOR DOUBTS ABOUT AUTHENTICITY OF THE COMPONENT IN QUESTION

BGA (pin 0)  
Score = 0.3812  
X = 11.52 mm, Y = 7.30 mm



Detection of the defective output of the investigated microcircuit in the BGA package. The figure shows the difference in signatures for the output of the investigated chip and the original chip. Defect is marked in red



EyePoint B10 is indispensable in the testing laboratory of any major supplier of modern microcircuits. If you have ever received a complaint from the customer about the malfunction of the delivered BGA components and it is returned simply check the component on the EyePoint B10; select the appropriate component from your warehouse or from the EyePoint B10 database and start the scan. The result will clarify any faults.

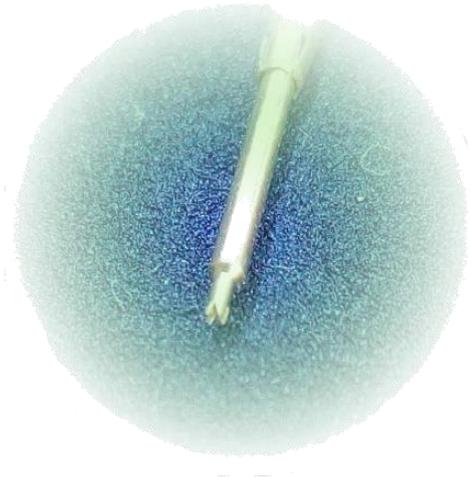
EyePoint B10 is a non-destructive testing system. The methods used in EyePoint B10 do not lead to failure or degradation of the electrical parameters of the investigated chip.

Determination of the pinout location of the BGA chip under investigation by the fully automatic optical scanner integrated into EyePoint B10

United States  
X Instruments LLC  
39270 Pased Padre Pkwy 631,  
Fremont CA 94538

sales @xinstruments.com  
+1-888-947-6388





## Technical characteristics:

- Supported package types: BGA, LGA, PGA, LCC, CSP
- Step and number of pins: 1.5 - 0.4 mm (0.6 in – 0.16 in), 8 – 2500
- Pin Arrangement: arbitrary
- Scanning speed: 100 points per minute
- Time to replace the sample: 10 sec
- Resolution of the flying probe: 10  $\mu$ m
- Scope of signatures: 0.8 - 3.3 V
- Dimensions: 300x400x240 mm (118 x158x95 in)
- Weight: 20 kg (44 lbs.)
- Managing PC: Intel i5 3 GHz, 16 GB RAM, 240 GB SSD
- Power supply: 120V, 300W