

# Variable Angle Viewing: for Glenbrook's RTX Series X-Ray Systems

Certain process defects, such as non-wetting and non-contact in solder joints on the underside of BGA components, have proven difficult to observe using straight-on X-ray images.

Glenbrook resolves the difficulty, with Variable Angle Viewing. VAV rotates the X-ray source on its axis for oblique viewing. VAV allows you to inspect for the full range of hidden BGA defects — missing or misregistered solder spheres, misalignments, gross solder voids and non-wetting or non-contact.

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## VAV: thinking out of the box . . .

*Instead of using a cumbersome mechanism in an oversized cabinet to rotate a BGA assembly for oblique viewing, Glenbrook's creative engineers asked: why not rotate the X-ray source, instead of the assembly?*

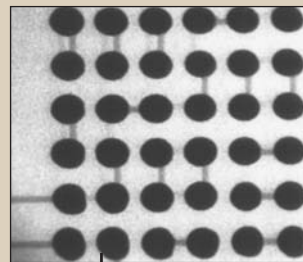


Fig. 1

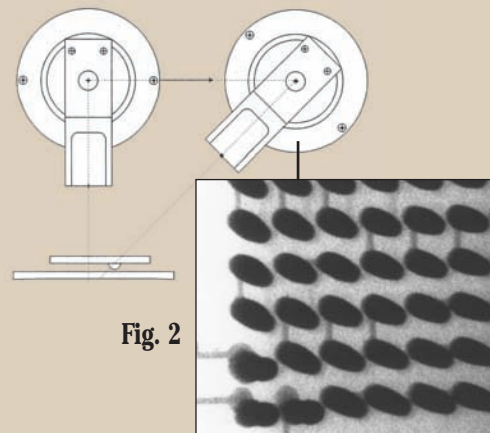


Fig. 2

## . . . staying within the enclosure.

*The answer is VAV, revealing BGA defects such as opens, which are characterized by non-wetting. Opens that are not revealed in a straight-on image (Fig. 1) can be observed in an oblique view (Fig. 2) of the same board.*

*VAV also fits neatly within the compact enclosures of Glenbrook's RTX Series real-time X-ray inspection systems ... as well as comfortably in your budget and on your assembly line.*

**For innovative thinking  
in real-time X-ray ...  
THINK GLENBROOK.**



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X-RAY TECHNOLOGY LIKE NO OTHER