APPLIED ®
IMAGE
Inc

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AP-KIT INSTRUCTIONS

APPLIED ROBOTIC/VISION TEST PLACEMENT TARGET (PACS2-HP)

INSTRUCTIONS & SPECIFICATIONS

Please contact Applied Image customer service at the address noted above, for custom images, shapes and materials.

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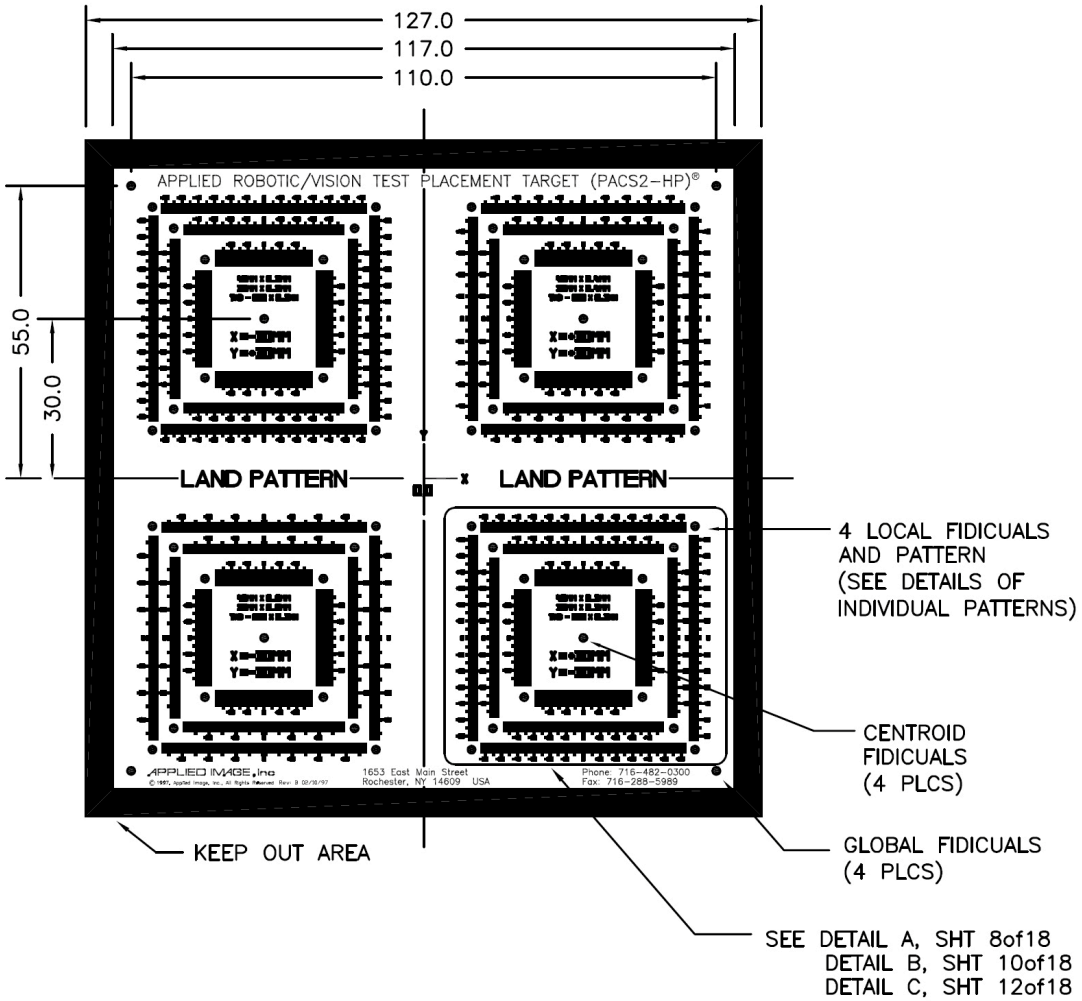

NOTES:

1) This "Land Pattern Target" Plate is the item upon which your "component" will be aligned. We suggest that a small piece of thin double back tape be placed in the center of each target point.

2) The "component" will then be picked from the "tray" by the robotic/vision arm and placed for alignment check upon the "Land Target Pattern" Plate. The double back tape will keep the "component" from moving easily.

3) The "Land Pattern Target" Plate with the "component" on top is then inspected with a microscope having at least 50X power. See Dwg. 1351 for procedures.

4) See pages 1350b, 1350c 1350d and 1350e for 'blow-ups' of the individual quadrants.

PART NO.:	APLP-1-P-CG
MATERIAL:	127 X 127 BY 2.28 ± 0.12 MM SODALIME GLASS PATTERN IS BLUE CHROME ON CLEAR FIELD
POLARITY:	OPAQUE FEATURES ON CLEAR FIELD
ORIENTATION:	RREU

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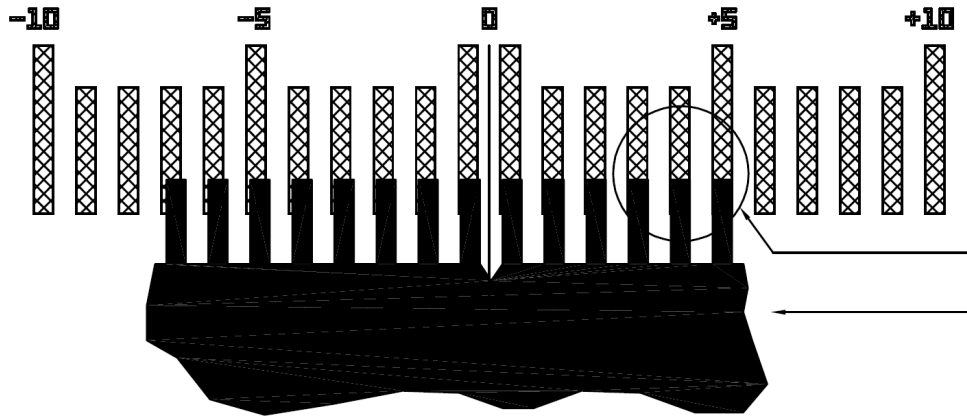

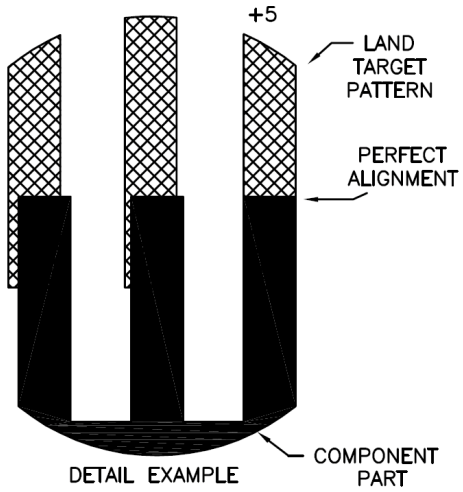

PROCEDURE (USING X AS AN EXAMPLE)

1) LOOK FOR THE TRIANGLE ▲ ON "COMPONENT" TO DETERMINE IF PART IS SHIFTED LEFT OR RIGHT FROM THE CENTER.
2) LOOK FOR COINCIDENT LEADS ON COMPONENT PART AND LAND PATTERN. (SEE EXAMPLE)
3) RECORD THE LEAD # (ON THE LAND PATTERN) CORRESPONDING TO ALIGNED LEADS ON STEP2.
4) OFFSET IS SIMPLY (LEAD # X 5) UM. IN THE EXAMPLE, IT IS THE 5th LEAD TO THE RIGHT; THEREFORE 5X5 UM = 25 UM SHIFT TO THE RIGHT.

NOTE: "COMPONENT" PARTS ARE RIGHT READING CHROME SIDE DOWN (RRED). "LAND PATTERN TARGET" PLATE IS RIGHT READING CHROME SIDE UP (RREU).

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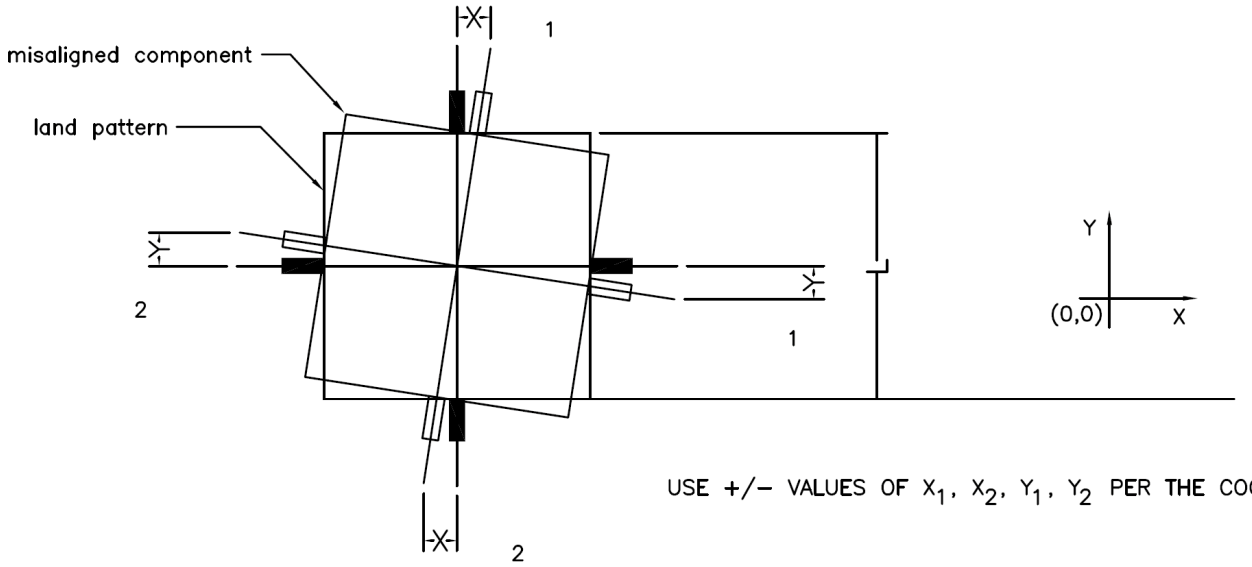

USE +/− VALUES OF X_1, X_2, Y_1, Y_2 PER THE COORDINATE SYSTEM

AVG. X OFFSET: $\bar{X} = \frac{X_1 + X_2}{2}$

AVG. Y OFFSET: $\bar{Y} = \frac{Y_1 + Y_2}{2}$

AVG. θ OFFSET: $\bar{\theta} = \frac{\theta X + \theta Y}{2}$ $\left(\begin{smallmatrix}\text{IN}\\ \text{DEGREES}\end{smallmatrix}\right)$

WHERE:

$$\theta_x = \tan^{-1}\left(\frac{X_1 - X_2}{L}\right)$$

AND:

$$\theta_y = \tan^{-1}\left(\frac{Y_1 - Y_2}{L}\right)$$