



SANMINA

Sanmina

Curso básico
para la
generación de
programas en
AOI VITROX

Parte 5 B-Type

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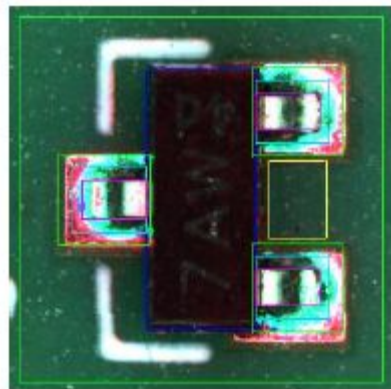
WHAT WE MAKE, **MAKES A DIFFERENCE**

Concept to Delivery / Advanced Technology / Manufacturing & Global Supply Chain Solutions / Systems & Intelligence

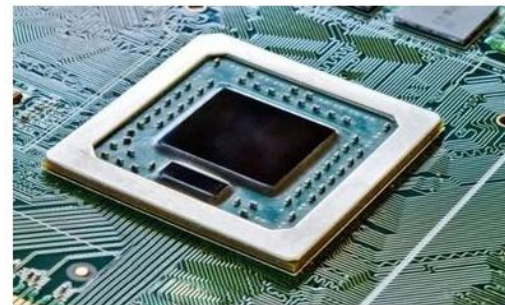
B-Type



QFN



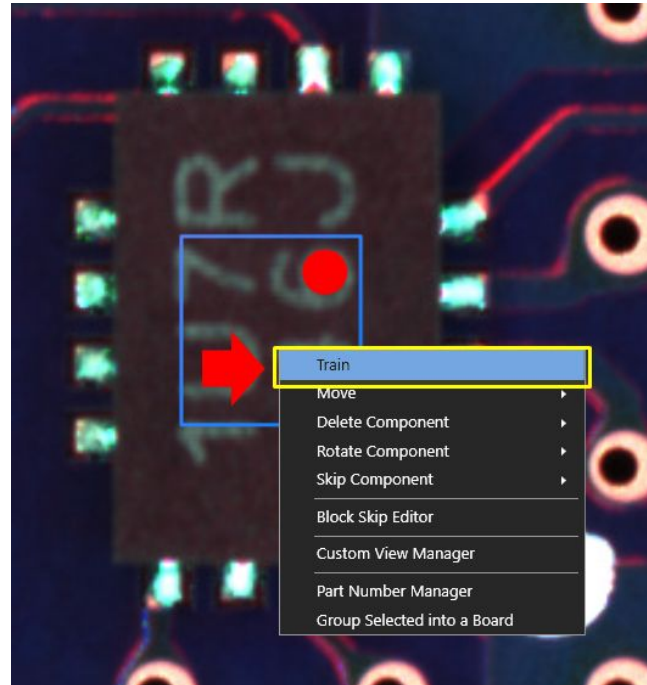
SOT



BGA

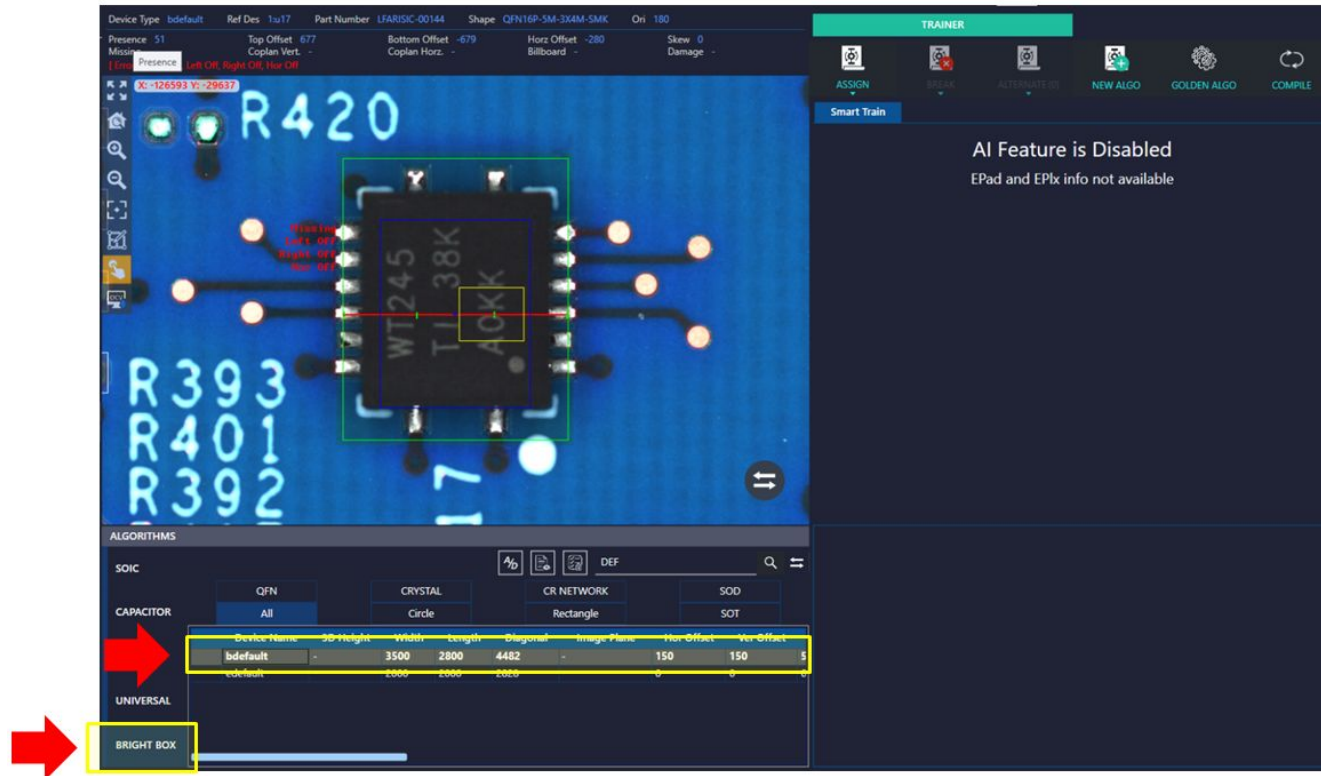
1. B-Type

- 1.1 Posiciónate sobre el componente
- 1.2 Da Click derecho y selecciona **Train**



1.3 Seleccionar Algoritmo **Bright Box**

1.4 Seleccionar **bdefault**

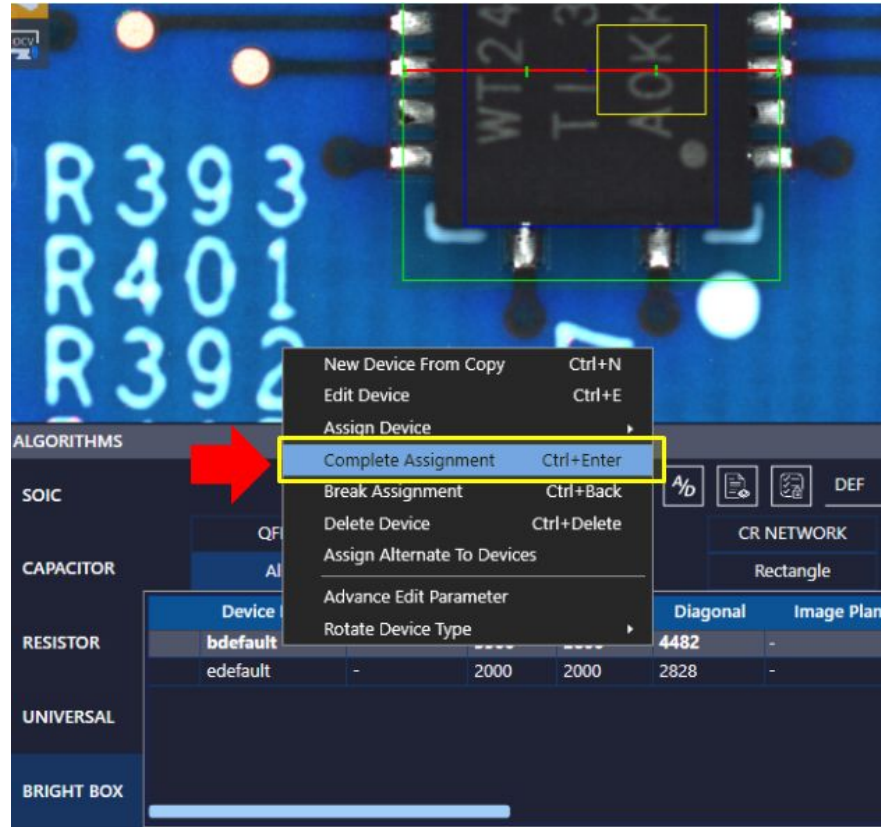


The screenshot displays the SANMINA inspection software interface. The main window shows a top-down view of a printed circuit board (PCB) with various components labeled, including resistors (R420, R393, R401, R392) and a central integrated circuit (IC) labeled WT245. A green bounding box is drawn around the IC, and a red crosshair is centered on it. The left sidebar contains a list of algorithms, with 'BRIGHT BOX' highlighted. The bottom panel shows the 'ALGORITHMS' section, where the 'CAPACITOR' algorithm is selected, and the 'bdefault' device is configured with the following parameters:

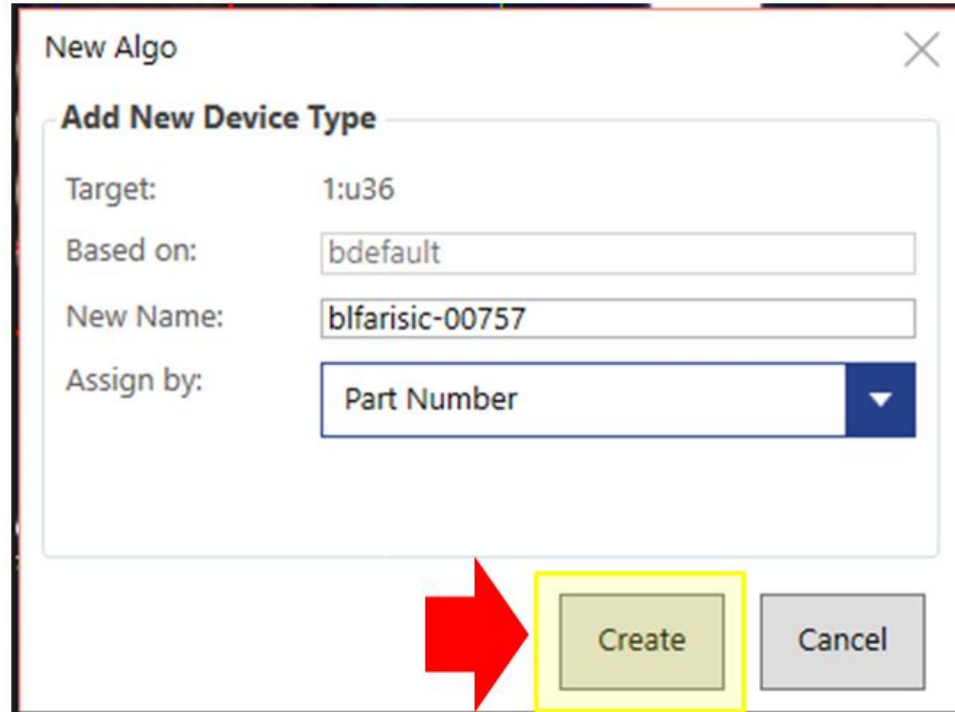
Device Name	SO Height	Width	Length	Diagonal	Image Plane	Hor Offset	Ver Offset
bdefault	-	3500	2800	4482	-	150	150

Red arrows point to the 'BRIGHT BOX' algorithm in the left sidebar and the 'bdefault' device in the bottom panel.

1.5 Da click derecho y selecciona **Complete Assignment**



1.6 Da clic en **Create**, sin modificar el nombre del algoritmo



New Algo

Add New Device Type

Target: 1:u36

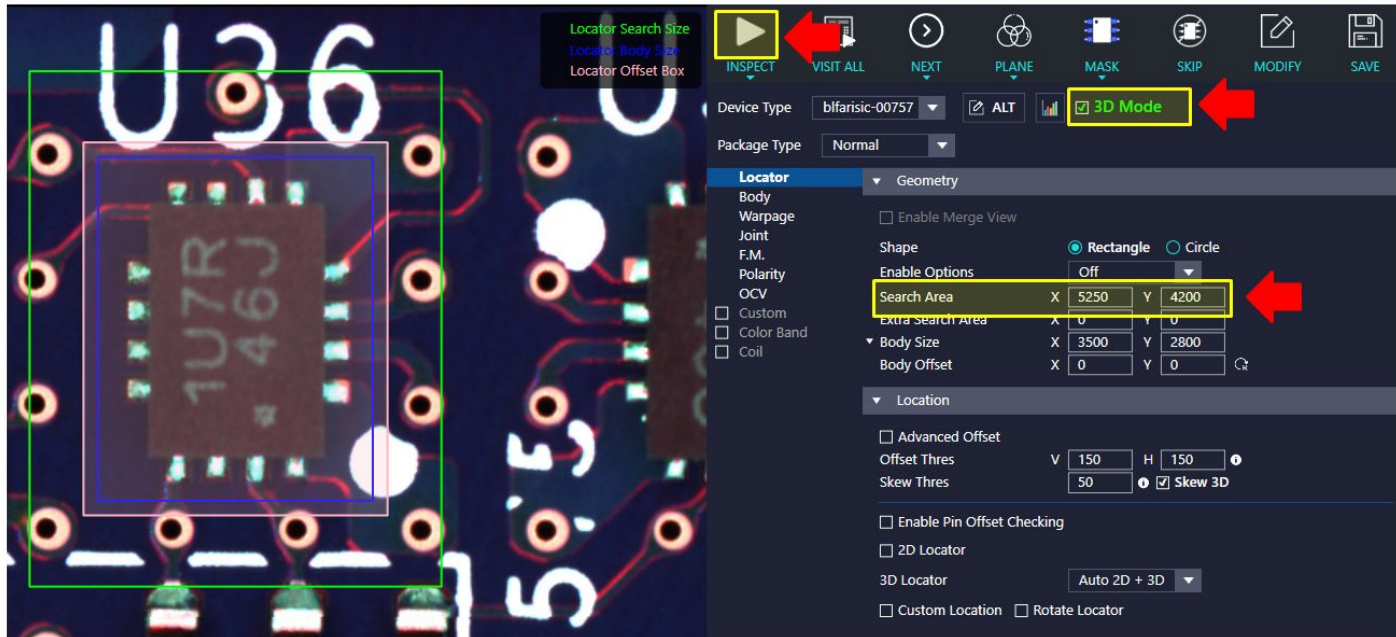
Based on: bdefault

New Name: blfarisic-00757

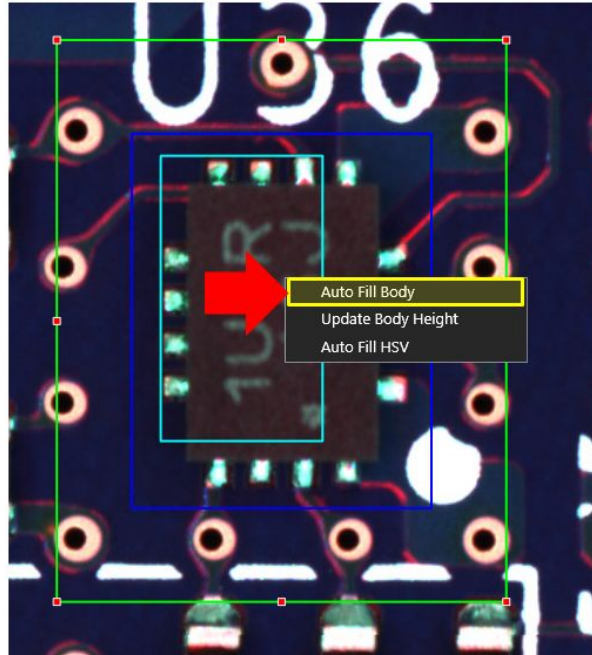
Assign by: Part Number

Create Cancel

- 1.7 Presiona **Ctrl + E** o da clic derecho sobre el componente y selecciona **Edit Device**
- 1.8 Selecciona la casilla de **3D Mode**
- 1.9 Ajusta el Área de búsqueda (caja verde), trata que dentro de la caja de inspeccion se visualice el punto de polaridad
- 1.10 Da clic en **INSPECT**

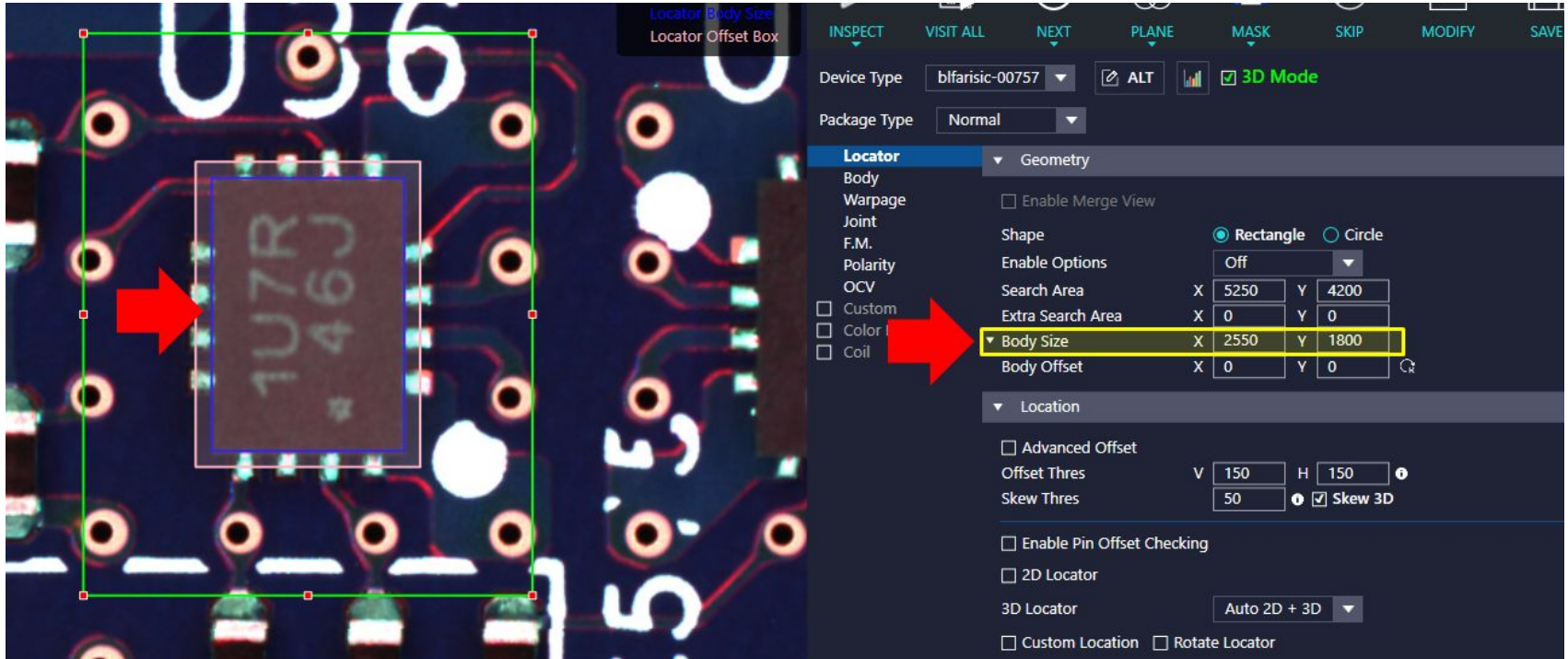


- 1.11 Ubicarte en el cuerpo del componente y presiona clic derecho se desplegará un menú con opciones
- 1.12 Selecciona **Auto fill Body**: Calculará automáticamente las dimensiones ancho y largo del componente



2. En la pestaña de **Locator**

2.1 revisa y ajusta lo mejor posible la caja **AZUL** al cuerpo del componente Guíate por los componentes de **Body Size**



Locator Body Size
Locator Offset Box

INSPECT VISIT ALL NEXT PLANE MASK SKIP MODIFY SAVE

Device Type blfarisic-00757 ALT 3D Mode

Package Type Normal

Locator Geometry

☐ Enable Merge View

Shape ☒ Rectangle ☐ Circle

Enable Options Off

Search Area X 5250 Y 4200

Extra Search Area X 0 Y 0

Body Size X 2550 Y 1800

Body Offset X 0 Y 0

Location

☐ Advanced Offset

Offset Thres V 150 H 150

Skew Thres 50 ☒ Skew 3D

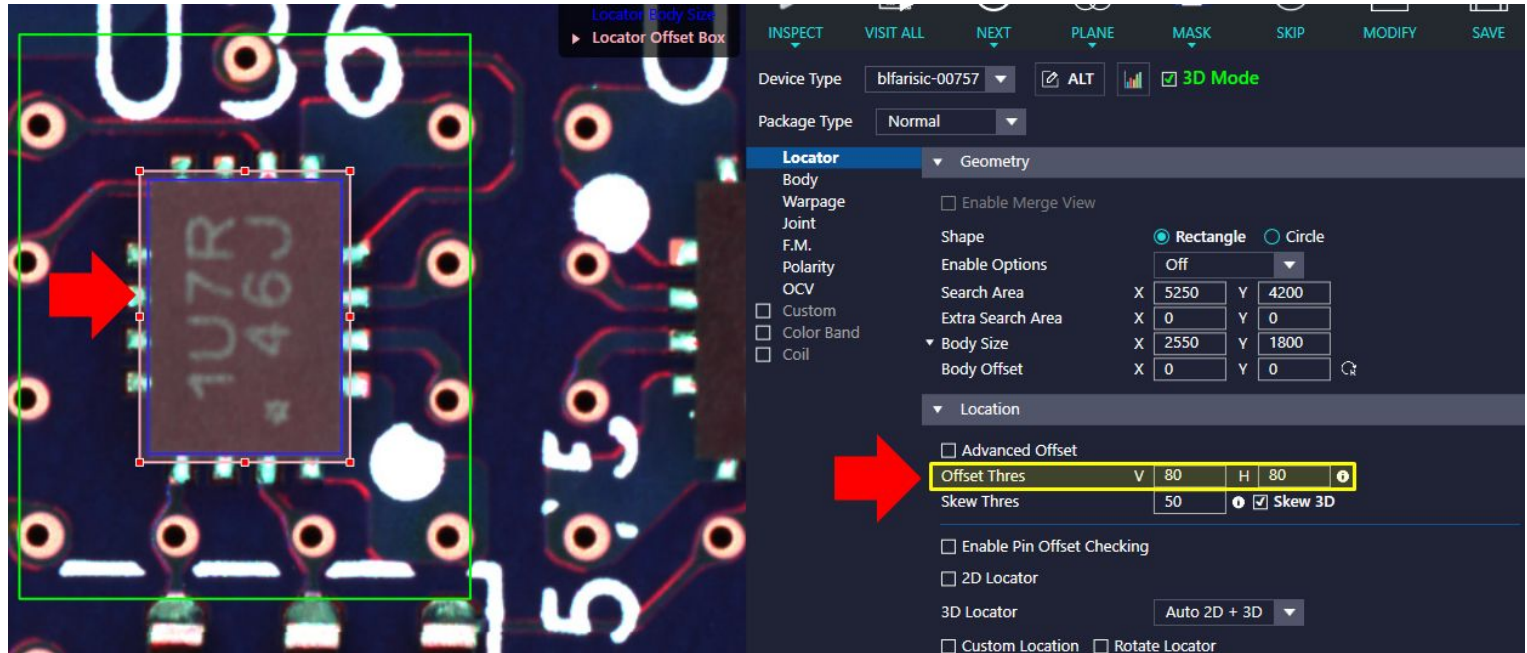
☐ Enable Pin Offset Checking

☐ 2D Locator

3D Locator Auto 2D + 3D

☐ Custom Location ☐ Rotate Locator

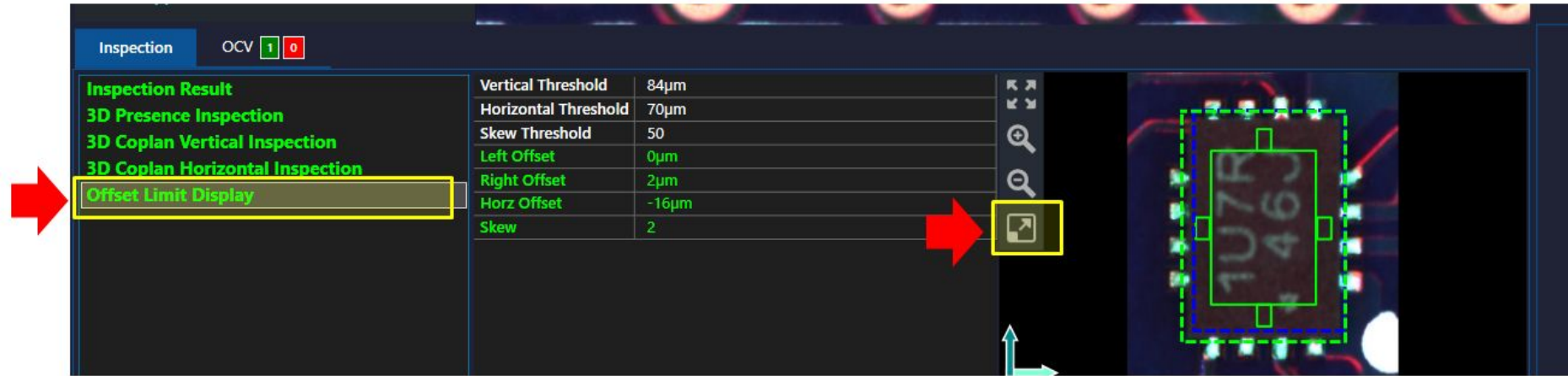
2.2 Configure **Offset Thres** (caja rosa) para delimitar el área que vamos a permitir que el componente se desplace



2.3 Da clic en **Inspect**

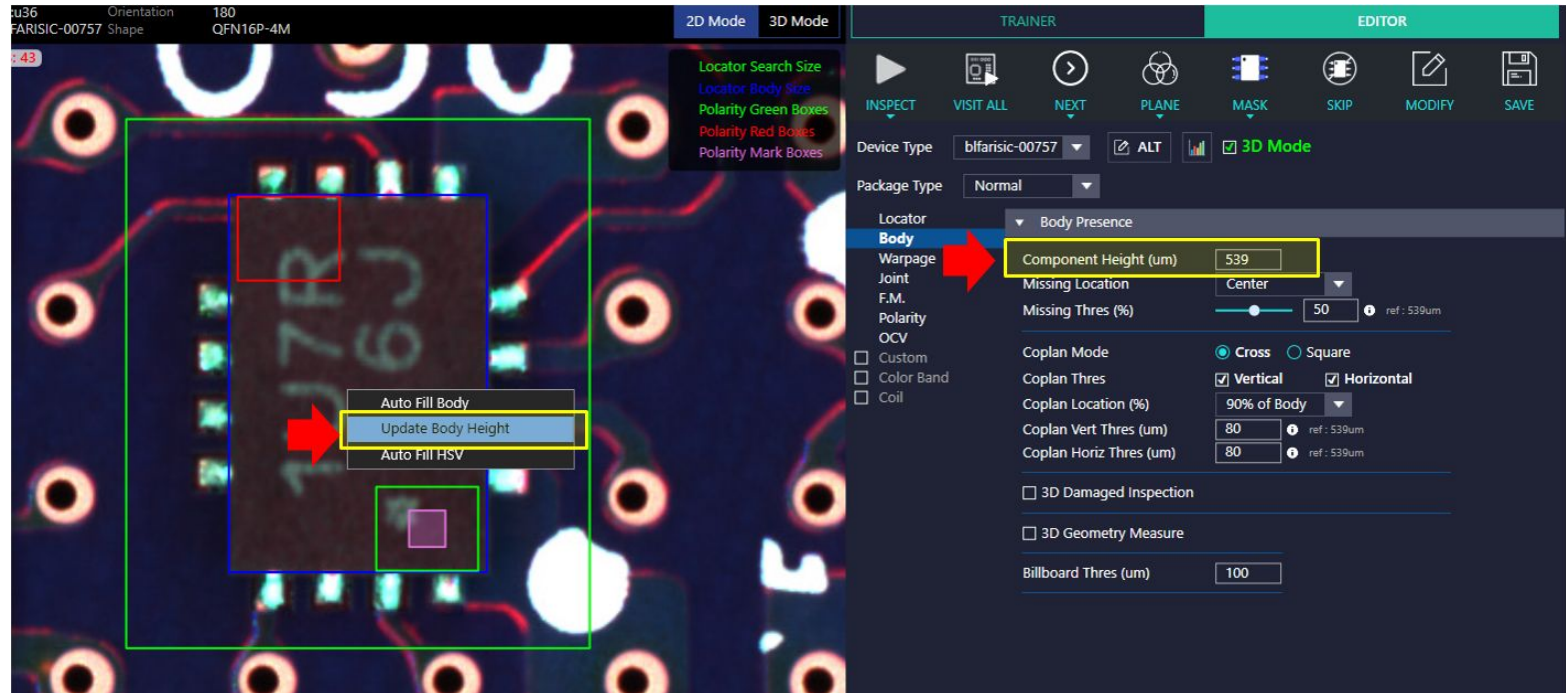
2.4 En la parte posterior Izquierda selecciona **Offset Limit Display**

2.5 Verifica que el desplazamiento permitido sea el correcto



3 Configuración **BODY**

3.1 Posicionate sobre el componente y selecciona **Update Body Height** esto permitira aprender la altura del componente



The screenshot displays the SANMINA VITROX V510 inspection software interface. On the left, a 2D image of a component is shown with a green bounding box. A red arrow points to the 'Update Body Height' option in the 'Locator' menu. On the right, the 'EDITOR' panel is visible, showing the 'Body Presence' settings. The 'Component Height (um)' is set to 539, and the 'Missing Location' is set to 'Center'. The 'Missing Thres (%)' is set to 50. The 'Coplan Mode' is set to 'Cross', and the 'Coplan Thres' are set to 'Vertical' and 'Horizontal'. The 'Coplan Location (%)' is set to '90% of Body'. The 'Coplan Vert Thres (um)' is set to 80, and the 'Coplan Horiz Thres (um)' is set to 80. The '3D Damaged Inspection' and '3D Geometry Measure' options are unchecked. The 'Billboard Thres (um)' is set to 100.

Device Type: blfarisic-00757

Package Type: Normal

Locator: Body

Warpage

Joint

F.M.

Polarity

OCV

Custom

Color Band

Coil

Component Height (um): 539

Missing Location: Center

Missing Thres (%): 50 (ref: 539um)

Coplan Mode: Cross (selected), Square

Coplan Thres: Vertical (checked), Horizontal (checked)

Coplan Location (%): 90% of Body

Coplan Vert Thres (um): 80 (ref: 539um)

Coplan Horiz Thres (um): 80 (ref: 539um)

3D Damaged Inspection

3D Geometry Measure

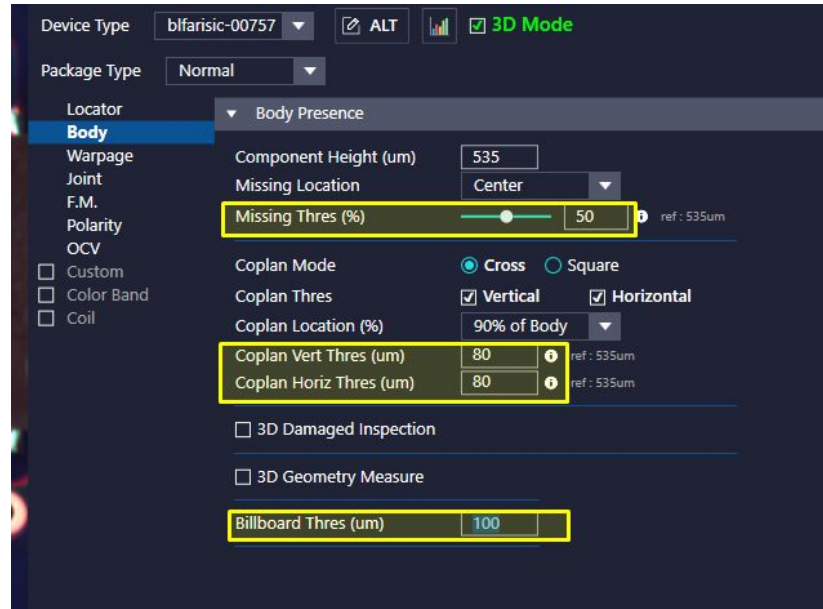
Billboard Thres (um): 100

3.2 Configura

Missing Thres:50

Coplan Vert Thres (μm) y Coplan Horiz Thres(μm): <100 μm

Billboard Thres (um): <100 μm

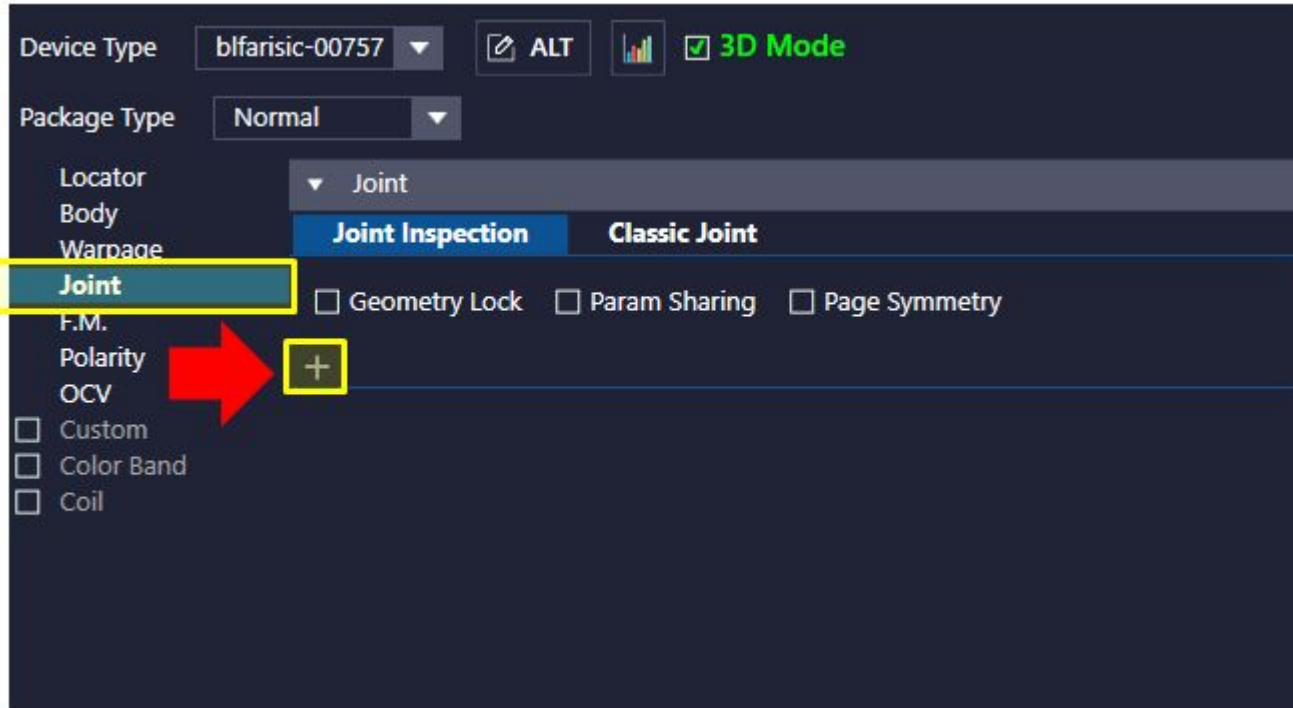


The screenshot displays the configuration interface for the Vitrox V510 inspection system. The 'Locator' is set to 'Body'. Under 'Body Presence', the 'Missing Thres (%)' is set to 50. The 'Coplan Mode' is set to 'Cross'. The 'Coplan Thres' are set to 'Vertical' and 'Horizontal'. The 'Coplan Location (%)' is set to '90% of Body'. The 'Coplan Vert Thres (um)' and 'Coplan Horiz Thres (um)' are both set to 80. The 'Billboard Thres (um)' is set to 100. The 'Device Type' is 'blfarisc-00757' and the 'Package Type' is 'Normal'. The '3D Mode' is enabled.

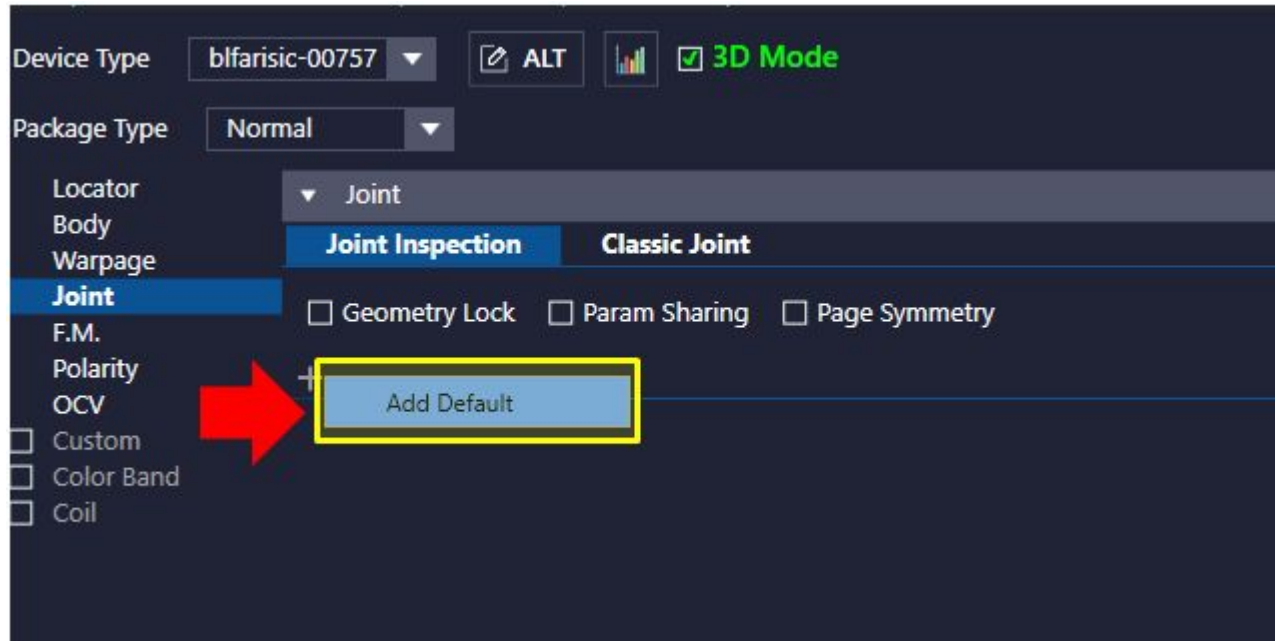
Parameter	Value
Device Type	blfarisc-00757
Package Type	Normal
Locator	Body
Body Presence	
Component Height (um)	535
Missing Location	Center
Missing Thres (%)	50
Coplan Mode	Cross
Coplan Thres	Vertical, Horizontal
Coplan Location (%)	90% of Body
Coplan Vert Thres (um)	80
Coplan Horiz Thres (um)	80
Billboard Thres (um)	100

4. Configuración de **JOINTS**

4.1 Seleccione Joint Inspection de clic en agregar



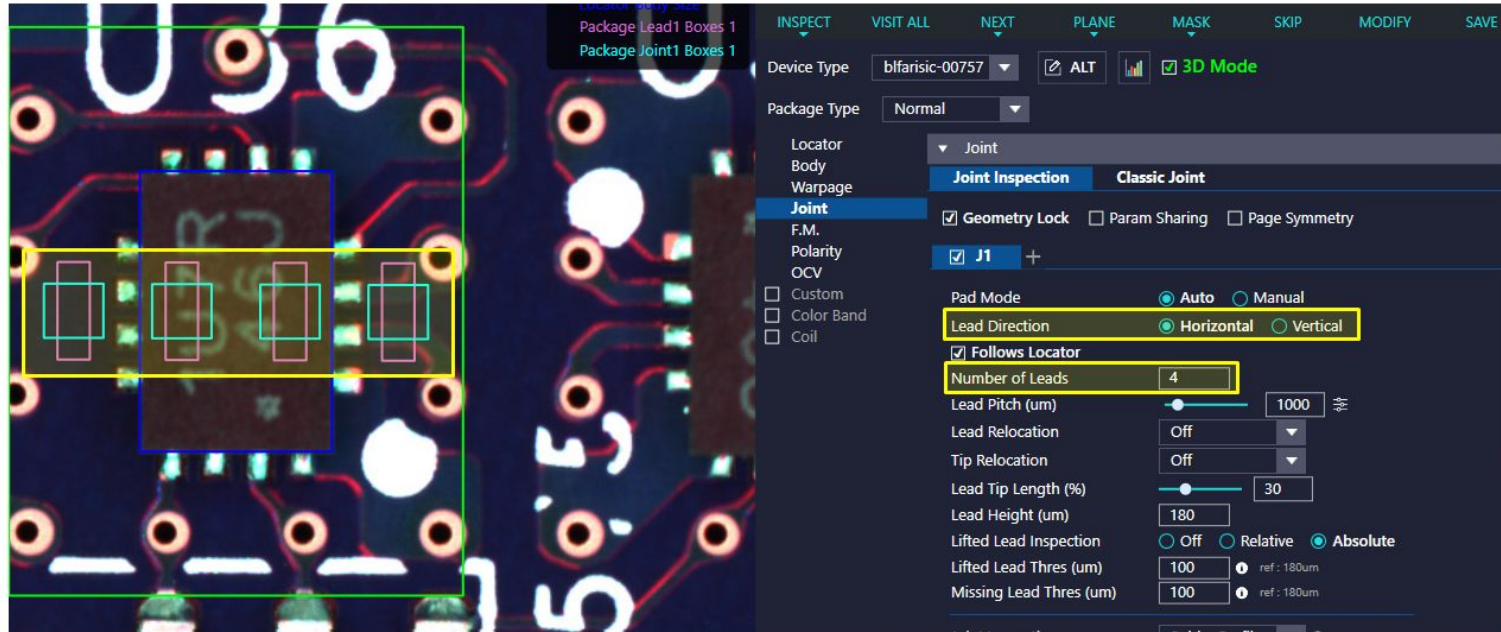
4.2 Seleccione **Add Default**



4.3 Configura

Lead Direction: de acuerdo a la orientación que se requieren los Joint

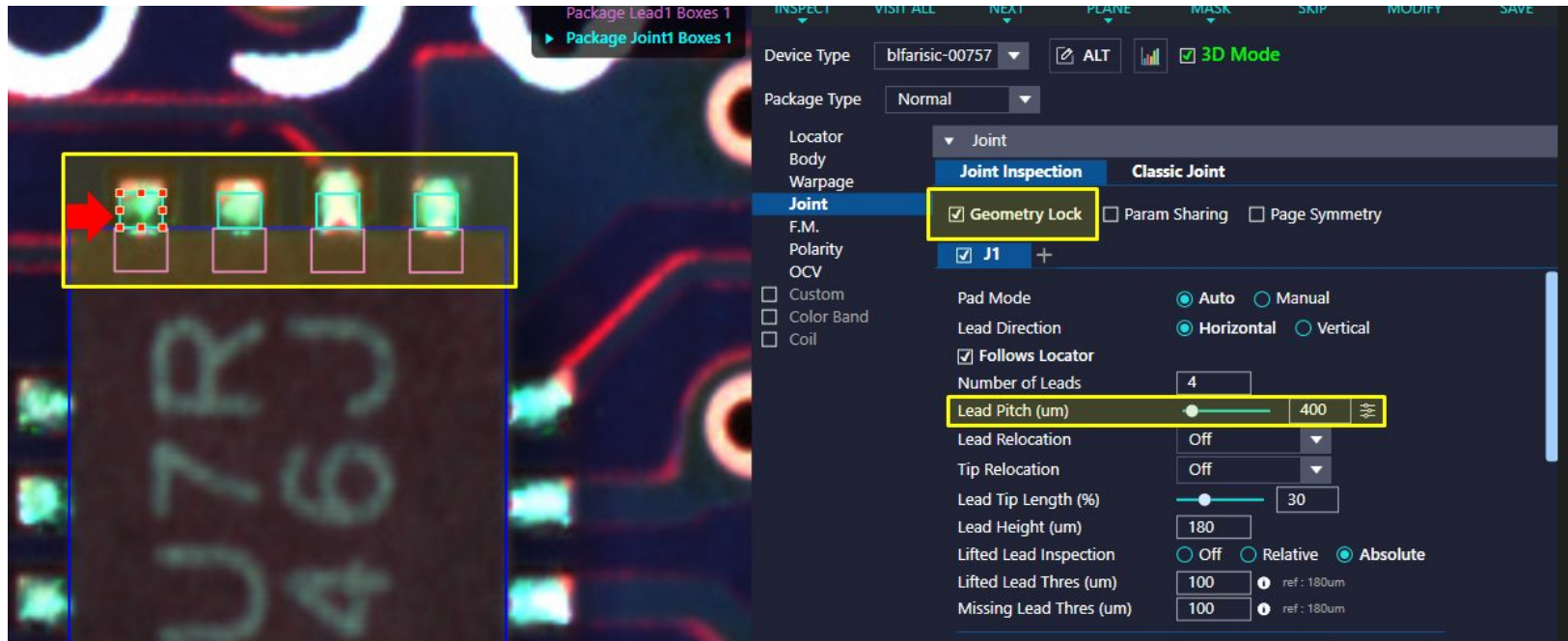
Number of Lead: Número de terminales



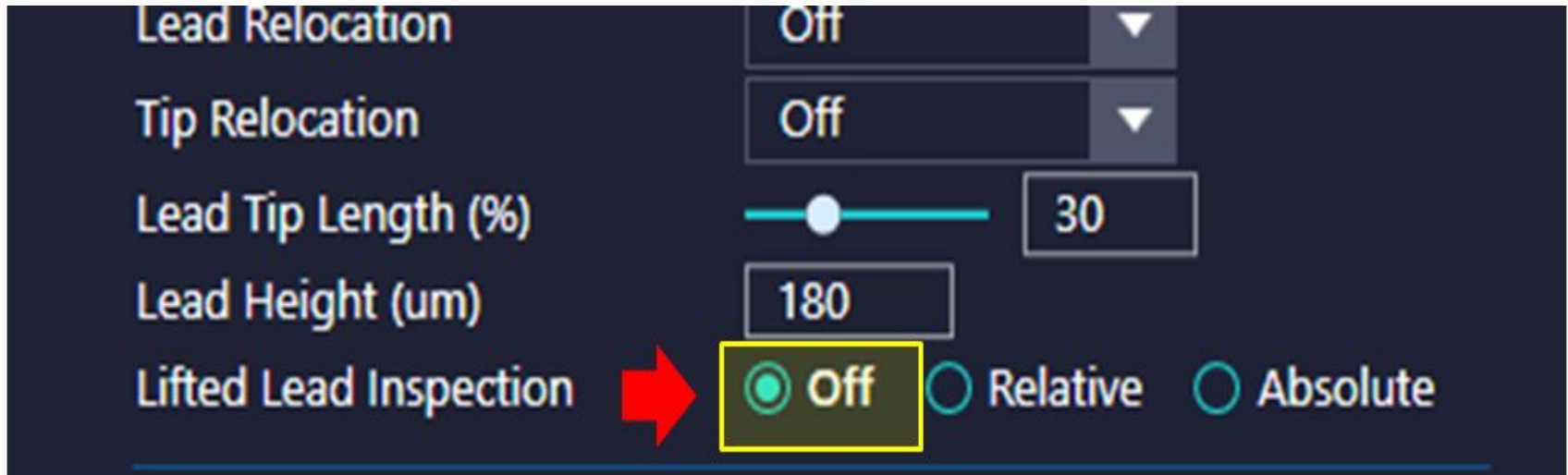
4.4 Habilita **Geometry Lock**

4.5 Con ayuda del mouse ubica la caja **rosa** sobre el cuerpo del componente

4.6 Ubica la caja **azul** sobre el área a inspeccionar soldadura



4. 7 Deshabilita opción para pines elevados



4. 8 Configura

Solder Inspection: Base reference

Joint Image Plane: Angle 3

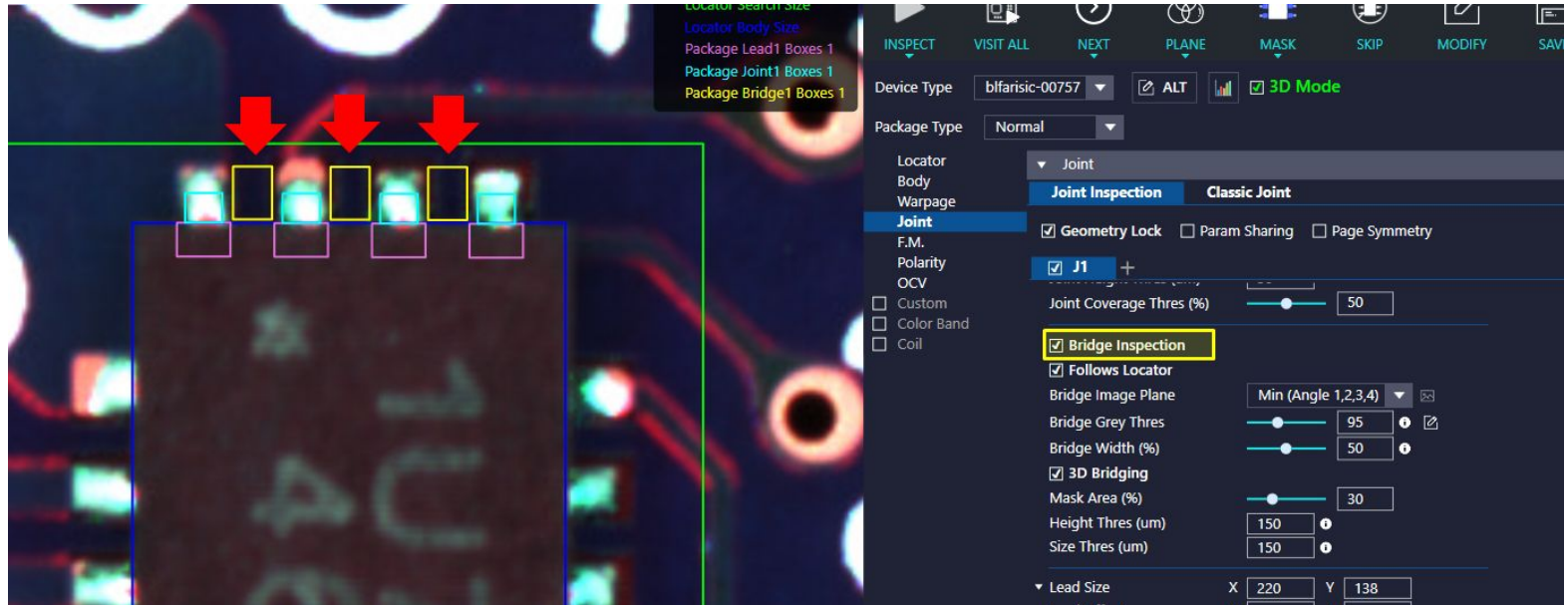
Joint Grey Thres: 120-160

Joint Height Thres: 50- 80

Joint Coverage Thres: 50-60



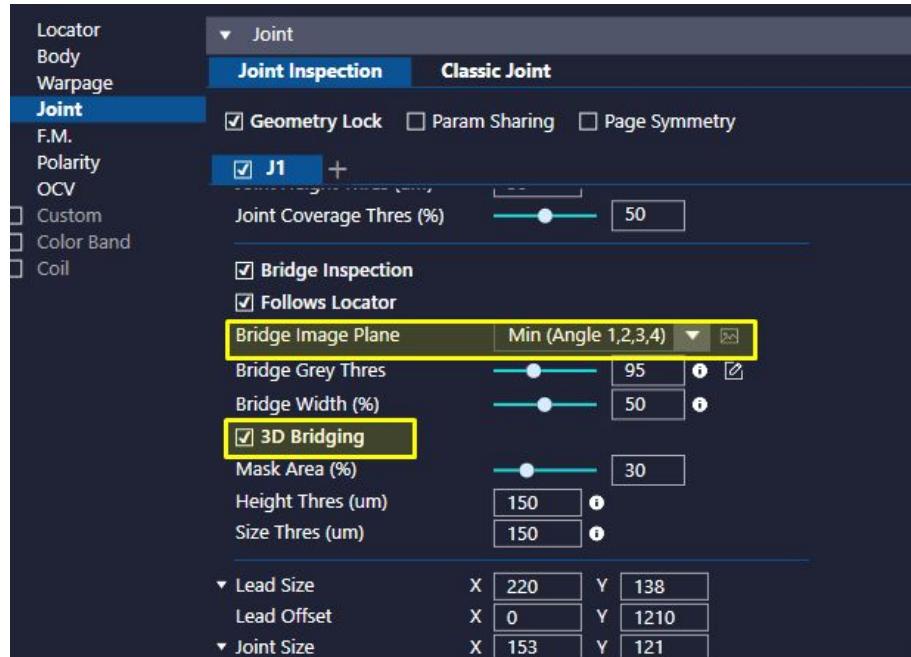
4.9 Habilita Bridge Inspection y ajusta las cajas de color Amarillo en el area a inspeccionar corto



4.10 Configura

Bridge Image Plane: Min (Angle 1,2,3,4)

Bridge Mode 3D : habilitado



Locator
Body
Warpage
Joint
F.M.
Polarity
OCV
☐ Custom
☐ Color Band
☐ Coil

▼ Joint

Joint Inspection Classic Joint

☒ Geometry Lock ☐ Param Sharing ☐ Page Symmetry

☒ J1 +

Joint Coverage Thres (%) 50

☒ Bridge Inspection

☒ Follows Locator

Bridge Image Plane Min (Angle 1,2,3,4) ▼

Bridge Grey Thres 95 ⓘ

Bridge Width (%) 50 ⓘ

☒ 3D Bridging

Mask Area (%) 30

Height Thres (um) 150 ⓘ

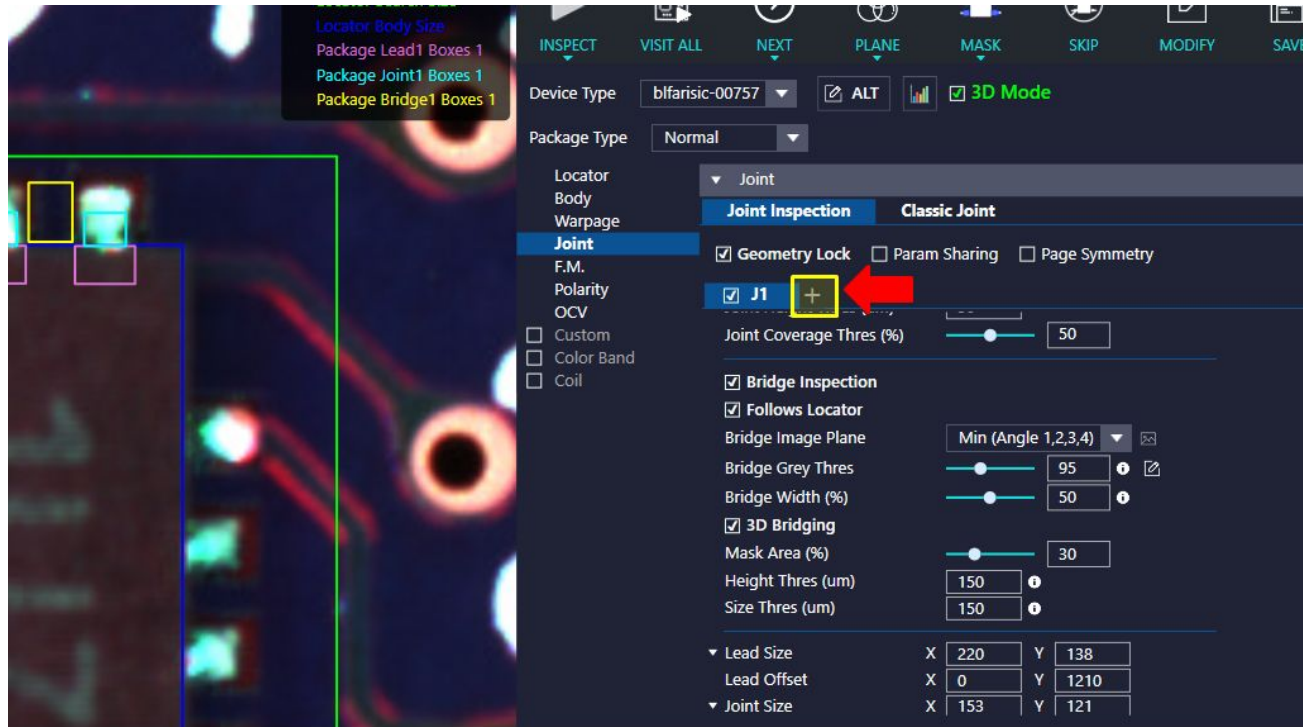
Size Thres (um) 150 ⓘ

▼ Lead Size X 220 Y 138

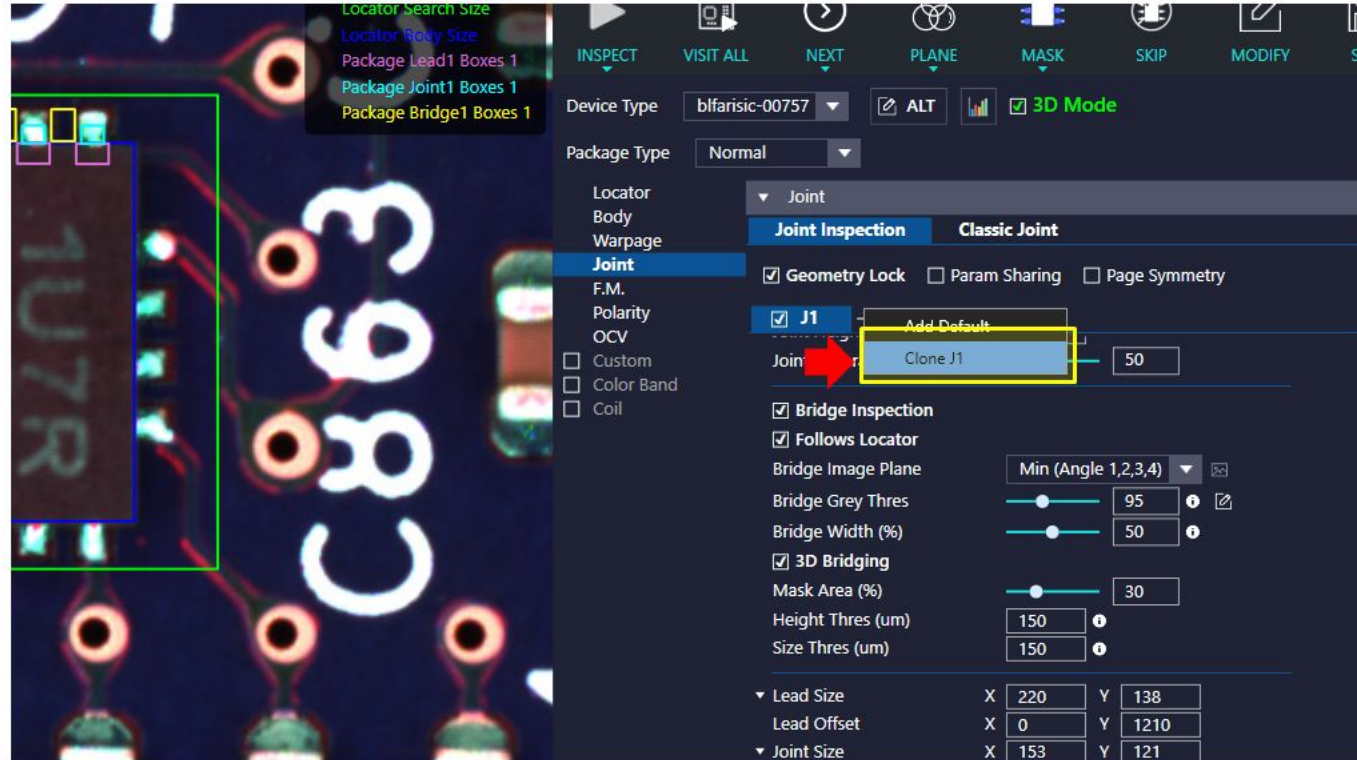
Lead Offset X 0 Y 1210

▼ Joint Size X 153 Y 121

4.11 Para generar los pines del lado opuesto da clic en agregar



4.12 Selecciona Clone J1



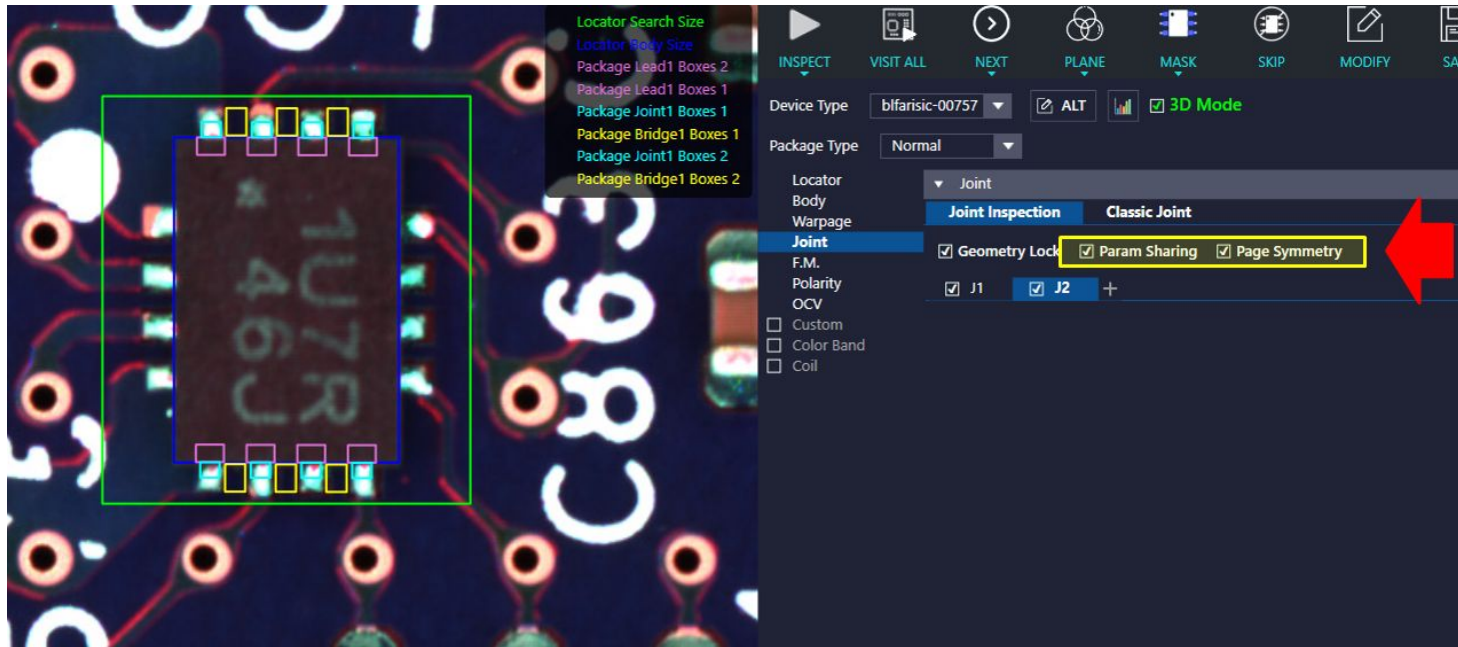
4.13 Habilita

Param Sharing

Page symmetry

4.14 Verifica que se crearon los pines correctamente

4.15 De la misma forma crea los pines de los lados restantes



5. Polaridad

5.1 Para polaridad usando círculo negro o Círculo blanco Ver:

https://docs.google.com/presentation/d/1IAmydVdg2H7fVQ9ZjcSelwmFQeJXBePGgs_2cXwnUSg/edit?usp=sharing