

X-ray Automatic Vision Inspection System

A Leader in X-Ray automation



ISO 9001:2000, CE Certificate

Xscan 6000

Xscan-6000 Series – Stage tilt



Xscan - 60 90 W S C A R T

- Tilt option.
- Rotation option.
- Auto inspection option.
- Computer tomography option.
- Linear scale option.
- Wide scanning area option.
- Max. high tension(80/90/130/160)
- Xscan series.(30/40/60/70/90)

Main application description

High resolution micro focus X-ray system for,

1. PCB assembly inspection for solder joint of QFP, BGA, CSP, etc.
2. Aluminum die-casting, electrical parts inspection for automobile.
3. Li ion battery (prismatic, cylindrical and polymer) inspection.
4. HHP keypad metal dome inspection.
5. Housing structure component inspection.
6. Copper wire inspection
7. etc.

Model		Xscan-6090 Series	Xscan-6130 Series	Xscan-6160P Series
X-Ray Tube	Focus Size	5μm	5μm	300μm
	Current/Voltage/Power	250μA/90KV/10W	400μA/130KV/30W	3mA/160KV/195W
	Geometric magnification	x5 ~ x120 (Option : x2 ~)	x8 ~ x120 (Option : x2 ~)	x8 ~ x120 (Option : x2 ~)
	Total magnification	x10 ~ x3000		
X-Ray Detector		6 " /4 " Intensifier (Option : 9 " Intensifier)		
Manipulator	Manipulator	X, Y, Z, R, Rotation/Tilt		
	Max. scanning area	Standard : 350 x 300 mm (Option 1 : 450 x 400 mm, Option 2 : 620 x 520 mm)		
X-ray leakage dose		1μSv/h or less		
Dimension (W x D x H)		1430 x 1250 x 1950mm (Option 2 : 1900 x 1500 x 1950 mm)		
Weight		Approx. 1500 ~ 1900 Kg		
Power Supply		100/220V, Single phase 50/60Hz		
Remark		- An optional tilt unit for boards can be added. - An optional tilt-rotate unit can be added.		

Xscan-6000 Series – Stage tilt

Main features

• User friendly and easy-to-use

- ✓ Automatic brightness and contrast adjustment.
- ✓ CNC automatic positioning and cycling positioning.
- ✓ Intuitive to “teach-in” concept
- ✓ Automatic setting of X-ray parameters (voltage and current)
- ✓ Image distortion revision for accuracy.
- ✓ Closed X-ray tube.
- ✓ Easy to use : Jog shuttle and mouse.
- ✓ Easy image preprocessing application (Smoothing filter, etc.)
- ✓ Fast positioning by template function.

• Auto inspection module (AXI)

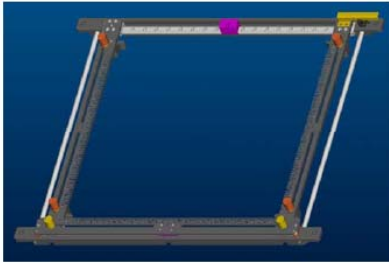
- ✓ Automatic inspection (pass-fail decision) of PCB for
 - Missing solder joint
 - Bridge
 - Crack and void
 - BGA
 - Solder ball
 - Misalignment and deformity of the component
 - Lack and excess of solder
- ✓ Multi ROI (Region of interest) on one PCB
- ✓ Multi PCB inspection across scanning area

• Computer tomography

- ✓ 3D visualization
- ✓ CT slice visualization

Xscan-6000 Series – Stage tilt

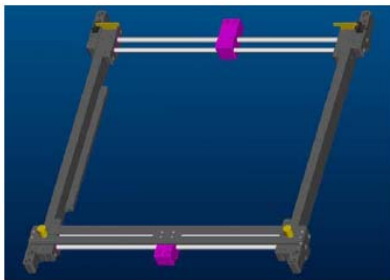
Table options –Ruller & RT box



Ruller-1



Ruller-2

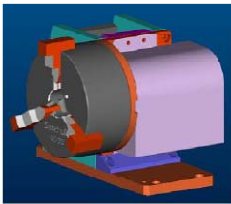


Ruller-3

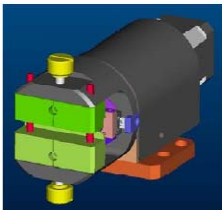


RT_box

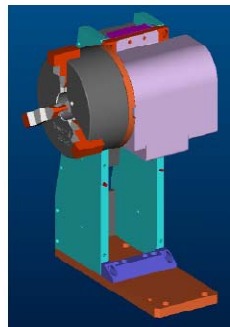
Table options –CT



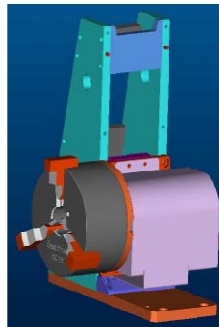
CT-1



CT-2

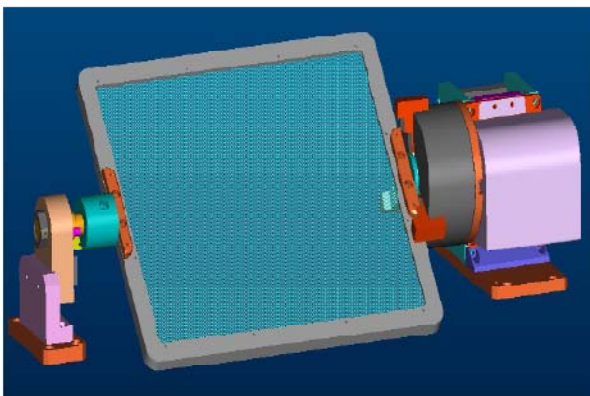


CT-3-H

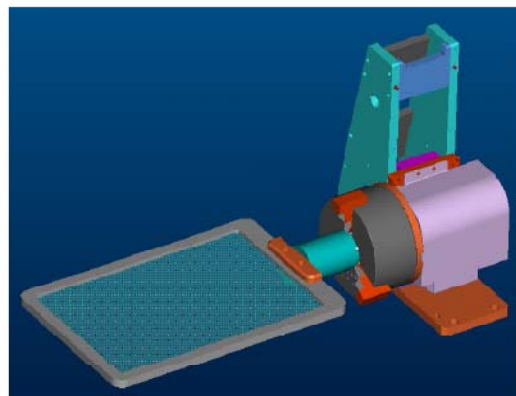


CT-3-L

Table options –CT & Tilt



CT-2+ Tilt_table1

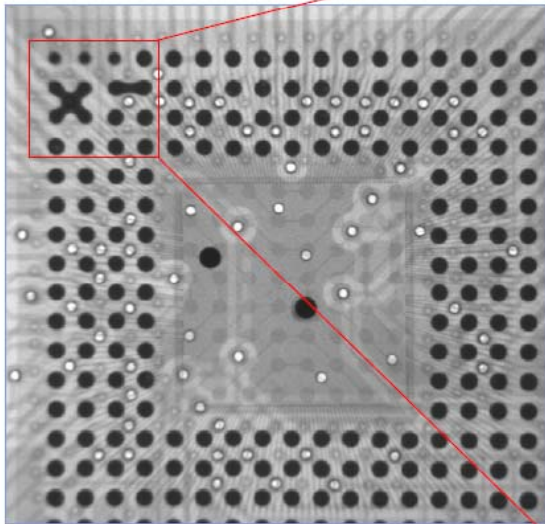


CT-3-L+ Tilt_table2

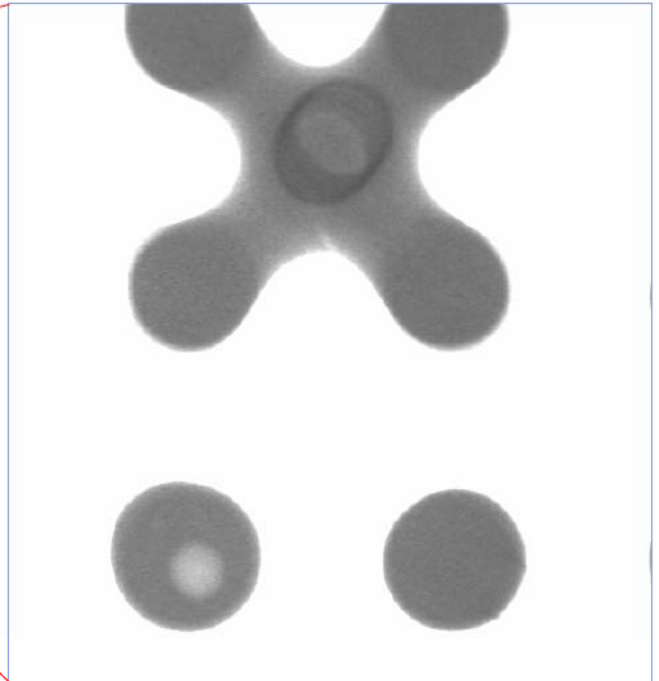
Xscan-6000 Series - Stage tilt

Xscan-7000 Series - Camera tilt

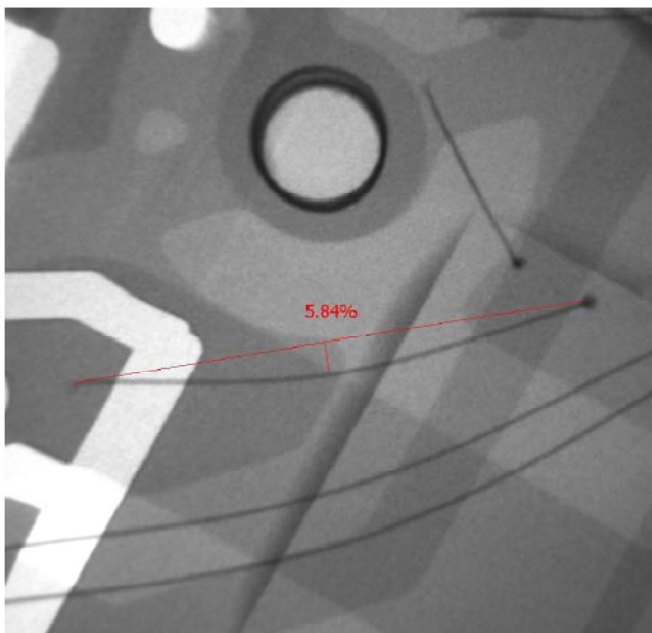
Image samples –Electric



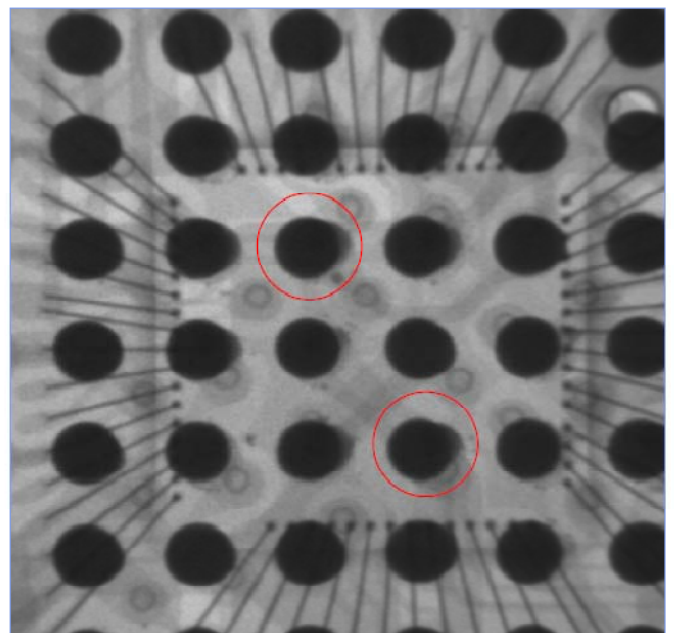
BGA



Void & Bridge

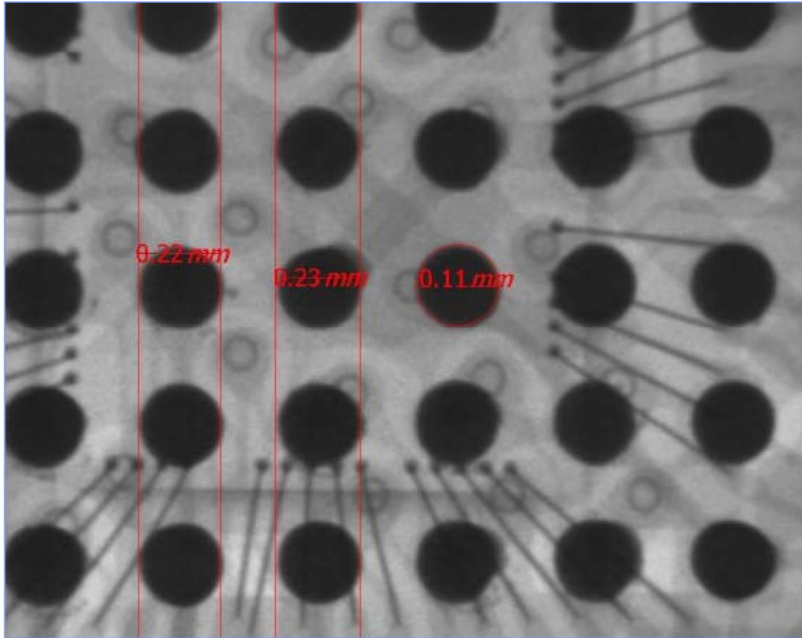


Gold Wire

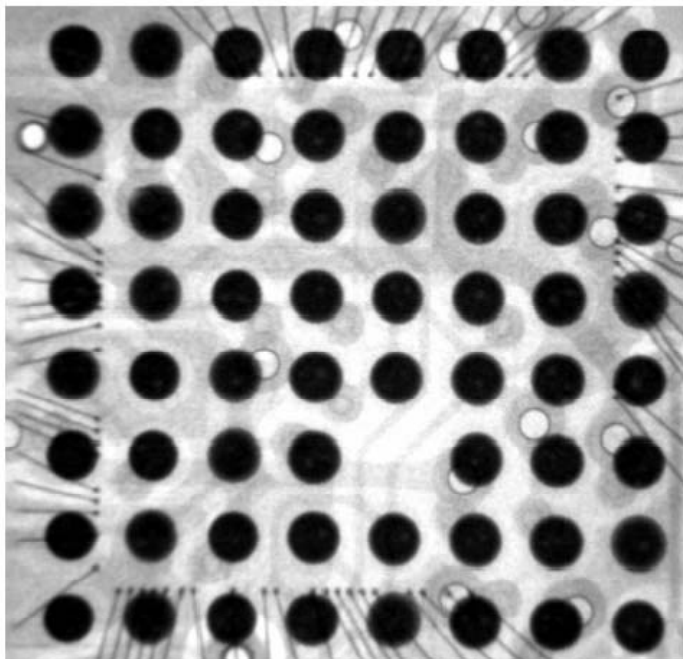
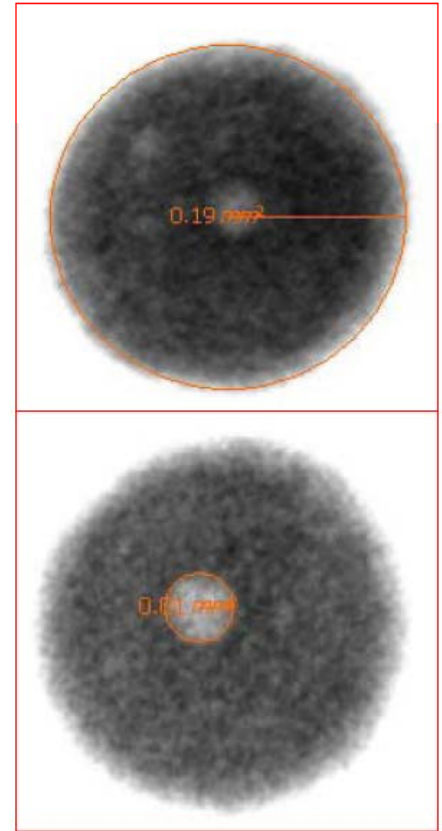


BGA Deformation

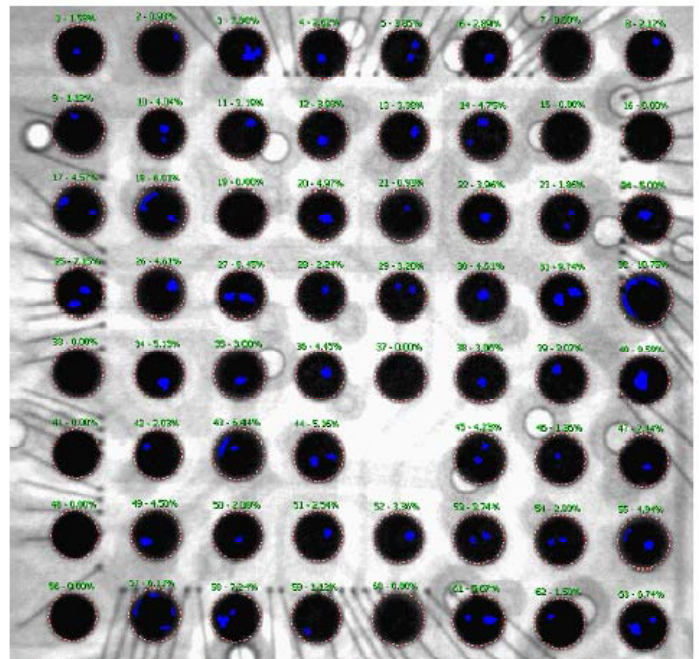
Xscan-6000 Series - Stage tilt
Xscan-7000 Series - Camera tilt



Void Size and Area

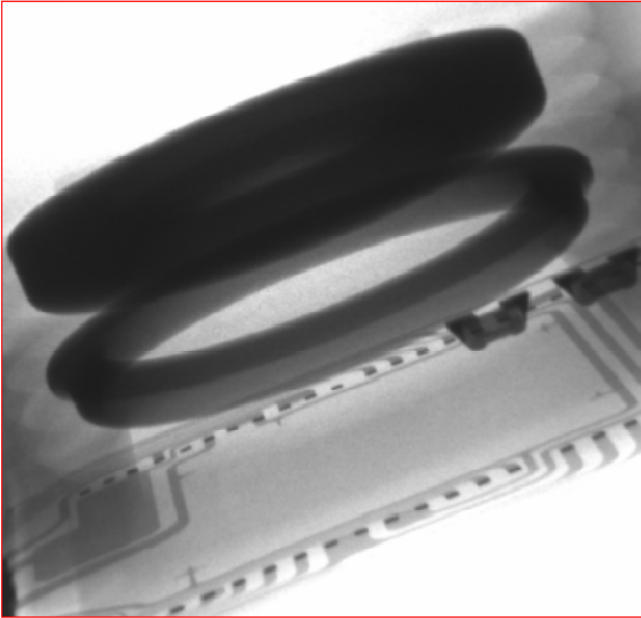


BGA

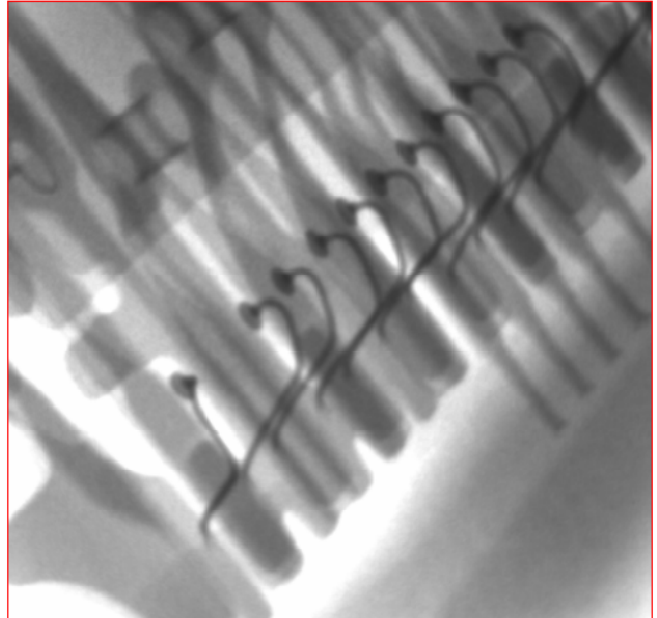


BGA void percentage

Xscan-6000 Series - Stage tilt
Xscan-7000 Series - Camera tilt

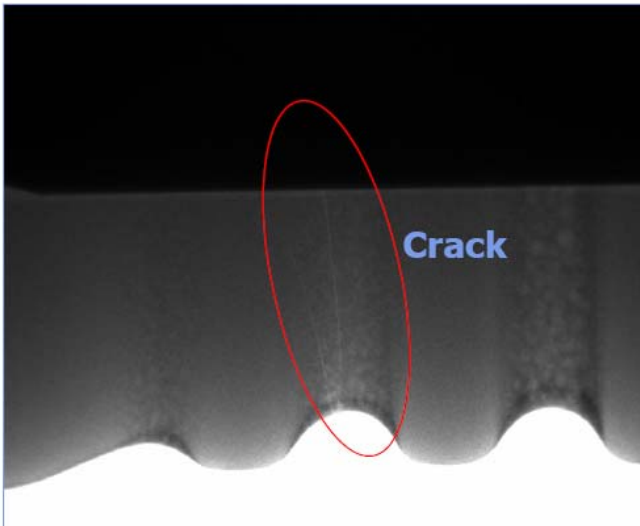


Camera MODULE(COF)

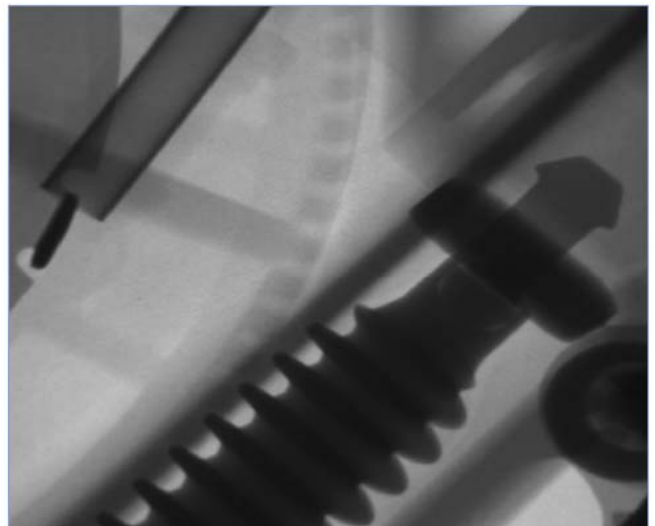


Camera MODULE(COB)

Image samples –Automobile



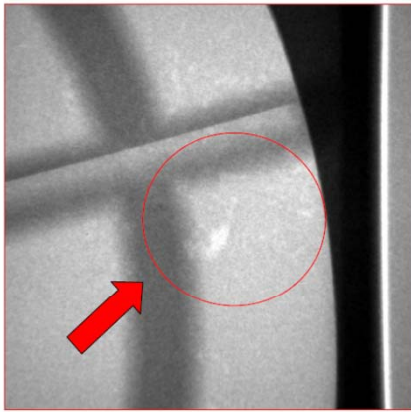
Spark plug



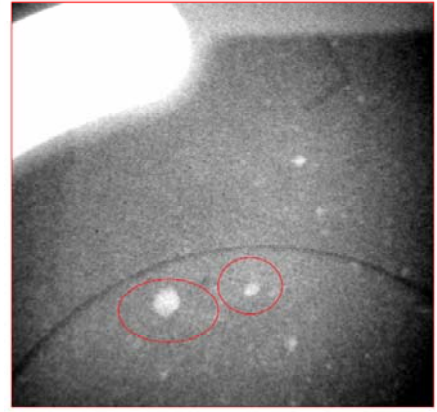
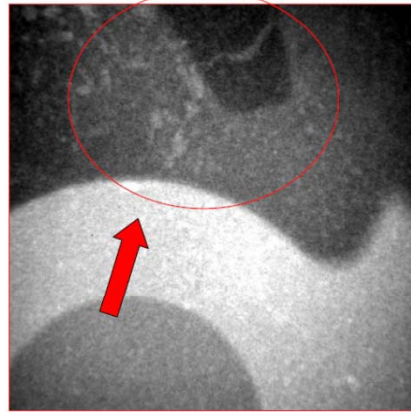
Wiper module

Xscan-6000 Series - Stage tilt
Xscan-7000 Series - Camera tilt

Image samples –Die casting

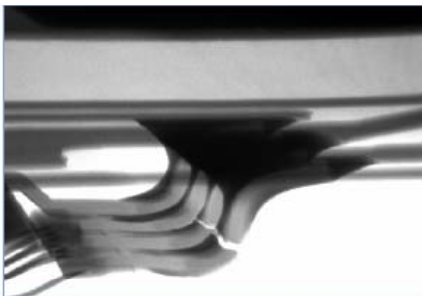


Crack & Blow Hole

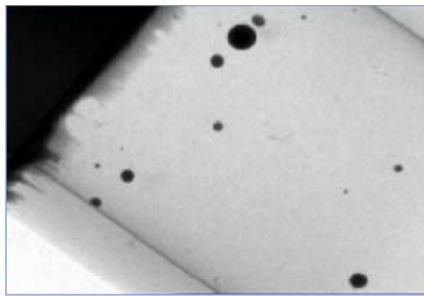


Blow Hole

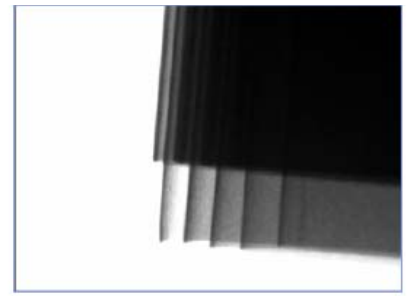
Image samples –Other parts



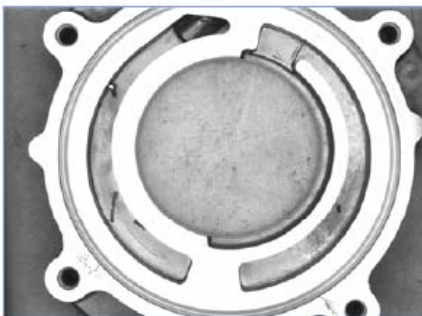
Crack



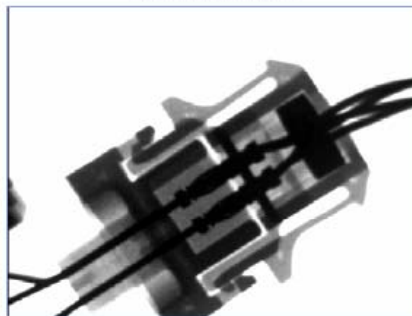
LCD back light



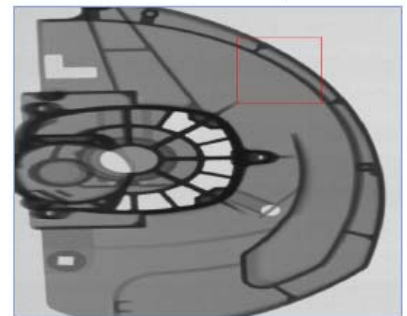
Li ion battery



Auto Parts

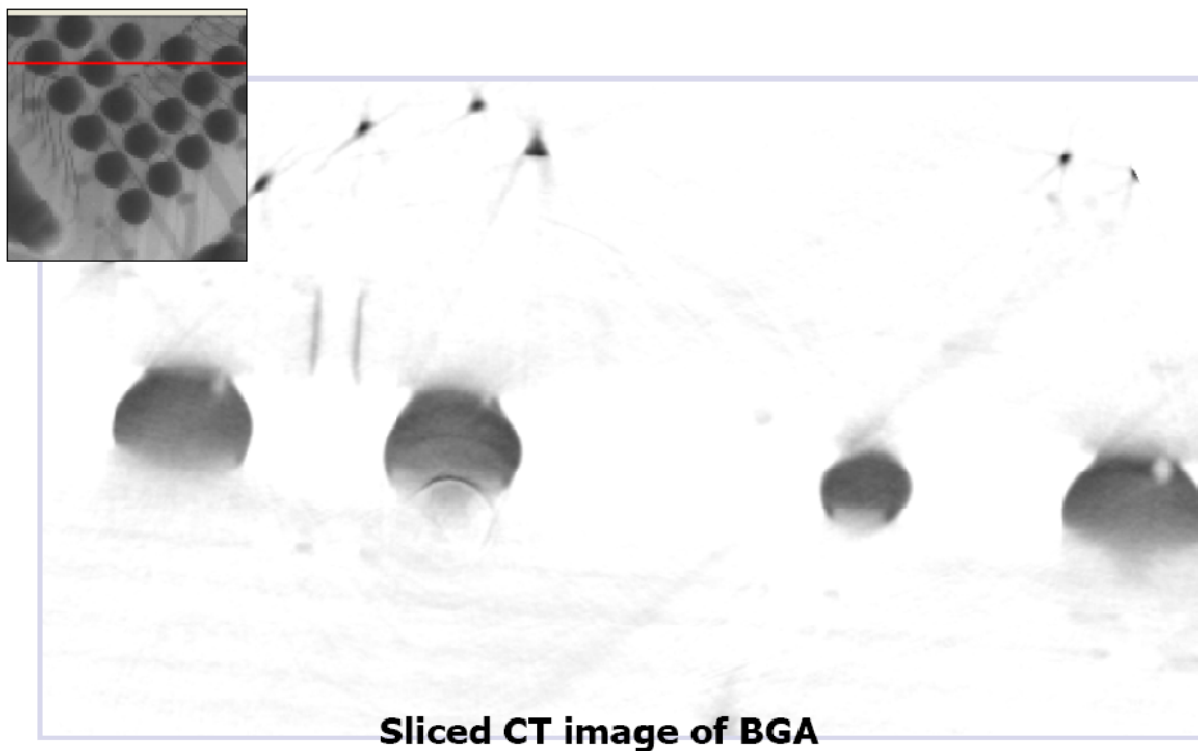
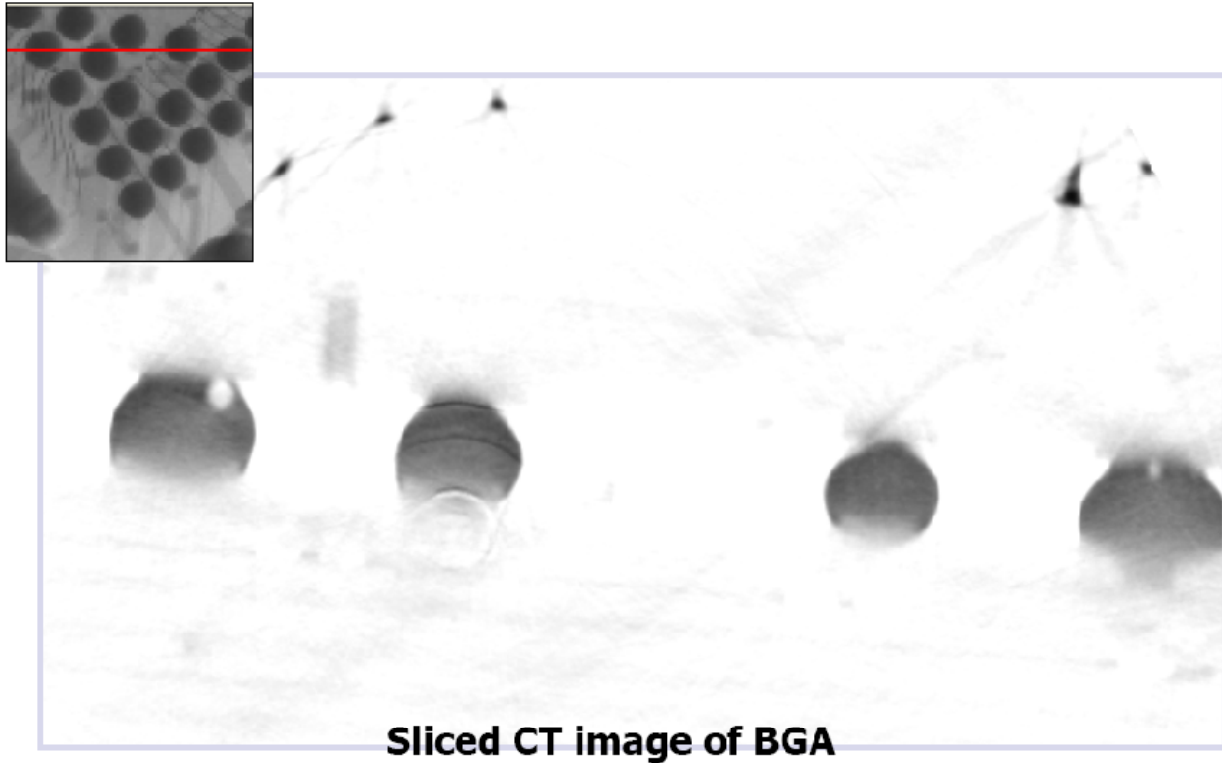


Connector



Die-Casting

Xscan-6000 Series - Stage tilt
Xscan-7000 Series - Camera tilt
Image samples –CT Image



Xscan-6000 Series - Stage tilt

Xscan-7000 Series - Camera tilt

Image samples –Auto Inspection

