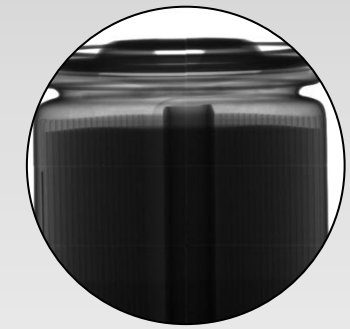
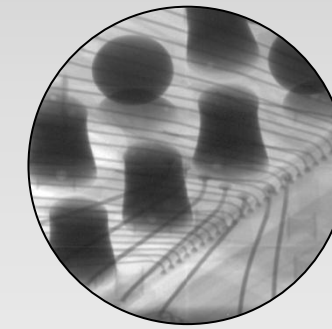
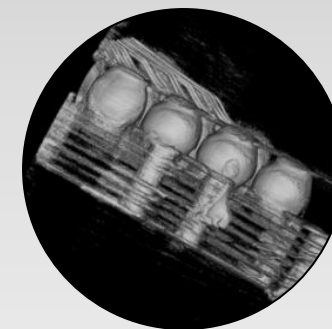


Dr. Fine X NEO Series

REAL 100% In-line Automatic X-ray Inspection come true.



PONY INDUSTRY CO.,LTD.

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E-mail : pony-global@ponyindustry.co.jp

Pony

NEO series realizes Highly Stable X-ray Inspection with Crystal Clear Image.
 Perfect for inspection of: semiconductors, electronic components, and Print Circuit Boards.
 All of our NEO series are equipped with PONY ORIGINAL "Direct Conversion Type X-ray Camera".



In-line Automatic X-ray Inspection System: NEO-INSPECTOR

NEO-INSPECTOR is equipped with the combination of super-stable micro focus X-ray generator and Direct Conversion Type X-ray Camera. This dream combination realizes Highly Accurate and Stable "REAL" automatic inspection possible.

Model	NEO-INSPECTOR
Max. Voltage / Current	110kV / 0.8mA (50W control)
X-ray Camera	SID-A50 or SID-L280
Magnification	Geometric : Approx. 10 times
Sample Size (mm)	50×50 ~ 280×330
Sample Thickness (mm)	1~2.5
Irradiation Box (mm)	W1250×D1250×H1520 (Display and Tricolored Light not included)
Leakage Level	Less than 1μSv / h
Power Supply	AC 50 / 60 Hz 100V 30A

*Loader and Unloader is optional.

Off-line X-ray Inspection System: NEO 690Z / 890Z

NEO 690Z & 890Z are equipped with wide angle closed tube X-ray generator. This allows high magnification from oblique view, compared to "The Other Manufacturer's" comparable models. Automatic Inspection and/or CT function are available (Optional).

Model	NEO 690Z	NEO 890Z
Max. Voltage / Current	90kV / 0.25mA (10W control)	
X-ray Camera	SID-A50	
Magnification	Geometric : Approx. 35 times	
Oblique View Angle	Approx. 50 degrees	
Table Size (mm)	350×400	510×560
X-Y-Z Axis Stroke (mm)	300×350×220	460×510×220
Irradiation Box (mm)	W930×D1035×H1320	W1250×D1355×H1320
Leakage Level	Less than 1μSv / h	
Power Supply	AC 50 / 60 Hz 100V 15A	
Optional	Automatic Inspection , CT Function	

ANALYTICAL X-ray Inspection System: NEO 110-D / 160-D

MC3160-D is equipped with open tube X-ray generator, makes it perfect system for analytical purposes. This system allows examination from various angle & direction with high magnification and resolution. CT function also available (Optional).

Model	NEO 110-D	NEO 160-D
Max. Voltage / Current	110kV / 0.2mA	160kV / 0.2mA
X-ray Camera	SID-A50	
Magnification	Geometric : Approx. 166 times	
Oblique View Angle	Approx. 55 degrees	
Rotation Angle	360°	
Table Size (mm)	420×520 (*Max. 520×755 including outer frame)	
X-Y-Z Axis Stroke (mm)	420×520×150	
Irradiation Box (mm)	W1400×D1520×H1780	
Leakage Level	Less than 1μSv / h	
Power Supply	AC 50 / 60 Hz 200V 20A	
Optional	CT Function	

ECONOMICAL X-ray Inspection System: NEO 2590 / 5090

NEO 2590 / 5090 are standard system suitable for inspection from one direction (TOP) suitable for semiconductor and electronic components. Theta-axis rotator is also available (Optional).

Model	NEO 2590	NEO 5090
Max. Voltage / Current	90kV / 0.25mA (10W control)	
X-ray Camera	SID-A25	SID-A50
Magnification	Geometric : Approx. 35 times	Geometric : Approx. 40 times
Table Size (mm)	350×400	
X-Y-Z Axis Stroke (mm)	300×350	
Irradiation Box (mm)	W810×D990×H1220	
Leakage Level	Less than 1μSv / h	
Power Supply	AC 50 / 60 Hz 100V 15A	
Optional	θ Axis Rotator	

* Custom made system also available. Contact us for details.

Direct Conversion Type X-ray Camera

Type	Area Sensor	Compact Type Area Sensor	TDI Line Sensor
Outline			
Model	SID-A50	SID-A25	SID-L280
Active Area(mm)	51.2×46.4	25.6×23.2	277
Resolution	More than 6LP / mm	More than 6LP / mm	More than 5LP / mm
TDI Throughput Lines	-	-	64 Lines or 32 Lines
Line Rate	-	-	1.8m / min. (at 64 Lines), 3.6m / min. (at 32 Lines)
Frame Rate	2~50 Frame / sec. (*1×1 bin)	2~50 Frame / sec. (*1×1 bin)	300 Frame / sec. (at 64 Lines), 600 Frame / sec. (at 32 Lines)
A D C Resolution	12 bit	12 bit	12 bit
Interface	Camera Link	USB / Camera Link	Camera Link

Longer Life

Minimal sensitivity degradation.
 Life of the camera is 5 times longer than C-MOS FPD.

High Sensitivity

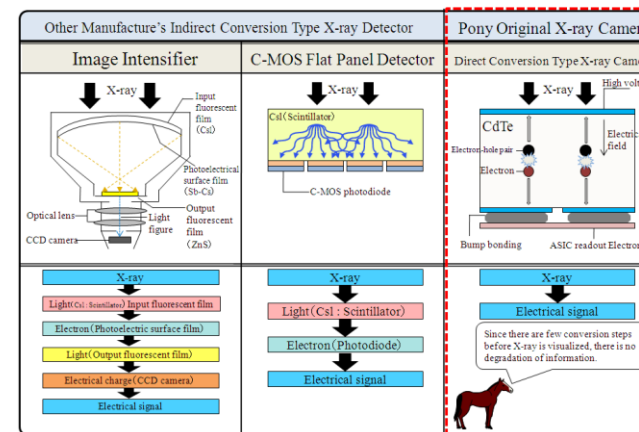
Excellent for use with low energy X-ray. This super sensitive camera shows low-noise, crystal clear image with wide range of X-ray energy.
 *6 times the sensitivity, compared to C-MOS FPD

Wide Dynamic Range

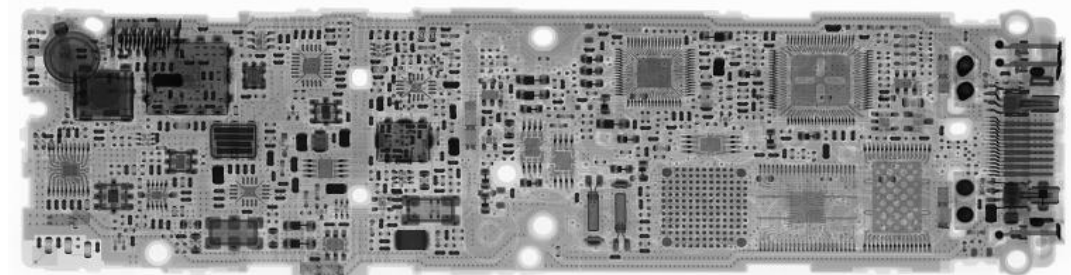
Wide dynamic range allows differentiation of slight contrast.
 Distinction of subtle change in gray-scale caused by voids and cracks made easy, compared to other detectors.

High Resolution

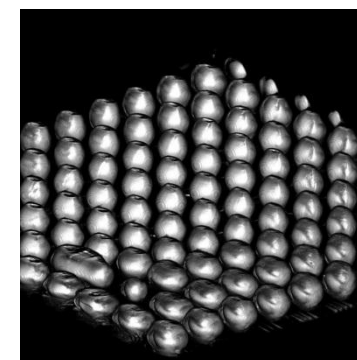
This scintillator-less mechanism delivers sharp image.
 Realizing detection of minute defects and foreign objects.



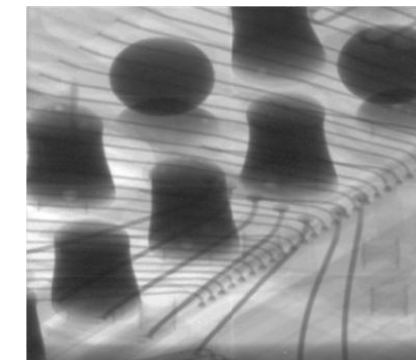
The existing X-ray detectors out on the market must convert X-ray into optical light via scintillator film at the surface of the detector (Indirect Conversion Method). During the conversion process, the light is diffused and scattered. X-ray detectors must read this distorted information. As a result, the blurring appears on the X-ray image, and this degrades the definition. In Pony Original Direct Conversion X-ray Camera, we adopted CdTe (Cadmium telluride) as X-ray transformation medium instead of scintillator. Similar with light for photodiode, CdTe has the characteristics of sending out electrical signal directly, according to the strength of X-ray received (Direct conversion Method). Therefore, it has high X-ray conversion efficiency, and the resulting image is always crystal clear. In addition, CdTe is composed of elements with higher atomic numbers, thus it can absorb majority of X-ray. Higher absorption rate leads not only to high sensitivity, but also prevents the read out electronics from harmful damage which causes the detector to deteriorate and eventually terminate the life of detector itself. Compared to the ordinary C-MOS flat panel detectors, Our CdTe camera can withstand more than 5 times the irradiation, greatly cutting down on replacement cost down the road.



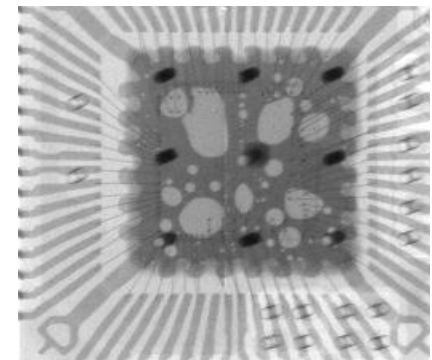
◆Electronic Substrate (SID-L280)



◆BGA CT画像



◆BGA (SID-A50)



◆QFP (SID-A25)