

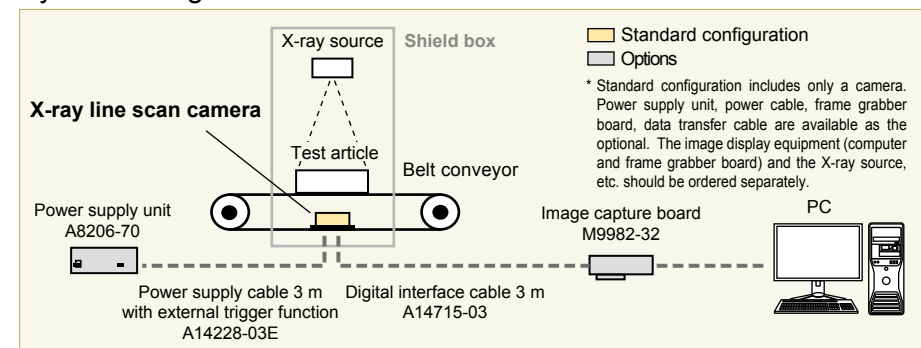
Specifications

Type number	C14300-05U	C14300-08U	C14300-12U
Camera type	X-ray line scan camera		
Detection method	Scintillator method		
Scintillator	Gd type scintillator		
Recommended use range (X-ray sensitivity)	Approx. 25 kV to 160 kV		
Pitch of detected element	0.4 mm		
Detection width	256 mm, 640 pixels	409.6 mm, 1024 pixels	614.4 mm, 1536 pixels
Line speed	4 m/min to 200 m/min		
A/D conversion	14 bit		
Output signal (image data)	14 bit digital output		
Control interface	USB 3.0		
Power supply	DC +24 V		
Ambient operating temperature	0 °C to +40 °C		
Ambient operating humidity	30 % to 70 % (With no condensation)		
Performance guaranteed temperature	0 °C to +40 °C		
Ambient storage temperature	-10 °C to +50 °C		
Ambient storage humidity	30 % to 90 % (With no condensation)		

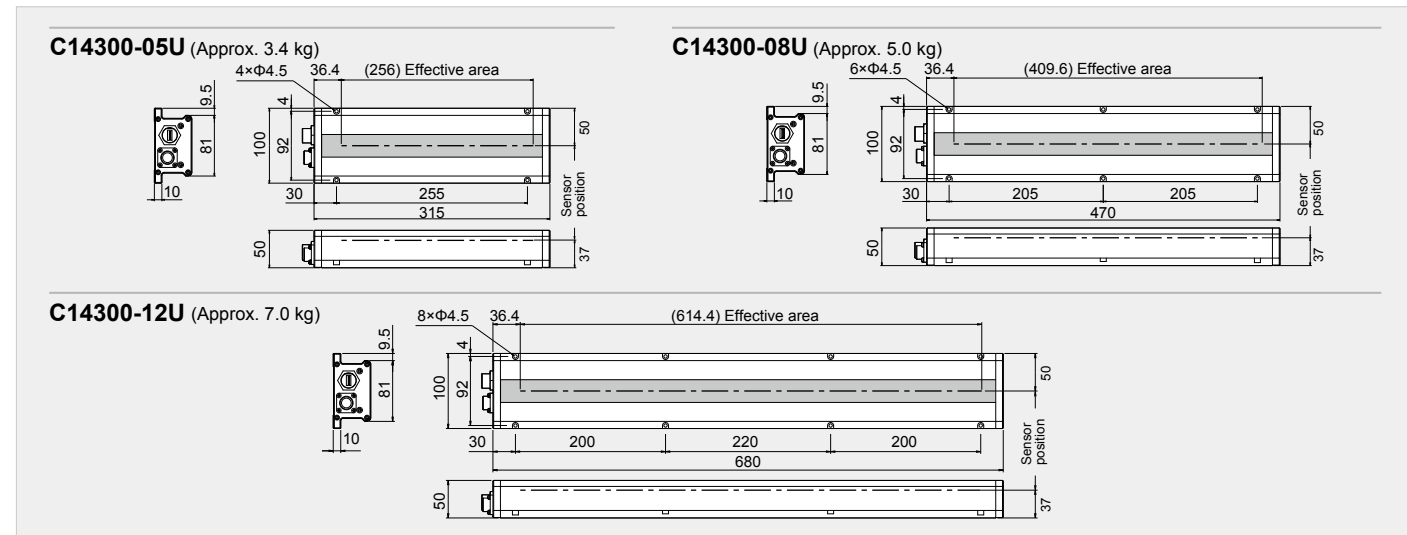
Options

- Power cable 3 m with external trigger function: A14228-03E
- Digital interface cable 3 m: A14715-03
- Image capture board: M9982-32
- Power supply unit: A8206-70

System configuration



Dimensional outlines (Unit: mm)



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 - Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions.
 - Specifications and external appearance are subject to change without notice.
 - Please note the X-Ray images on this brochure are taken for test purpose, the images do not reflect actual qualities of the products on the market.
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Created in Japan

NEW

X-ray line scan camera C14300 Series

Possible to perform non-destructive in-line inspection in a wide range of applications, including detection of foreign objects contaminating food and medical supplies



High dynamic range

Enable to detect from low to high X-ray dose

Low noise

High S/N imaging with a low X-ray dose

High speed

Compatible with high speed inspection up to 200 m/min

Downsizing

Smaller footprint contributes to the smaller inspection system

Waterproof / Dustproof

Enable to wash the system with camera on, protected from water and dust

HAMAMATSU
PHOTON IS OUR BUSINESS

Opened the door of unrealized inspection / Possible to perform non-destructive in-line inspection in a wide range of fields

C14300 series supports a wide usage, from a thin sample inspection to a thick sample inspection.

Inspection of thin sample

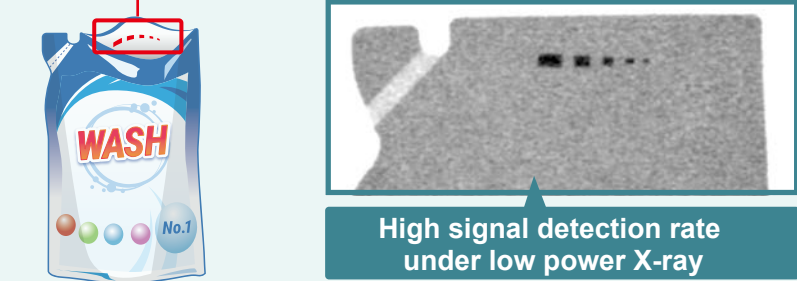
A thin sample inspection (such as sealing inspection) is realized by low noise

[Detergent Refill]

Allow the detection of shards sealed inside in a packing process

Sizes of the foreign object [mm]: 7×4 / 5×4 / 3×3 / 2×1.5 / 1.5×1.5

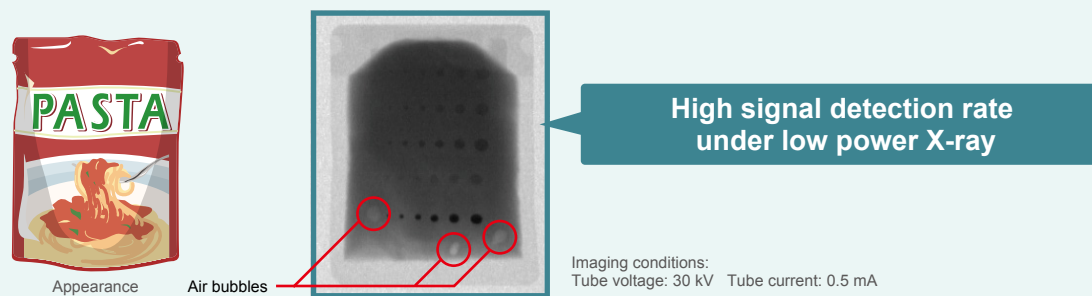
Foreign object: tape of a label printer



Appearance (what a retort pouch looks like)

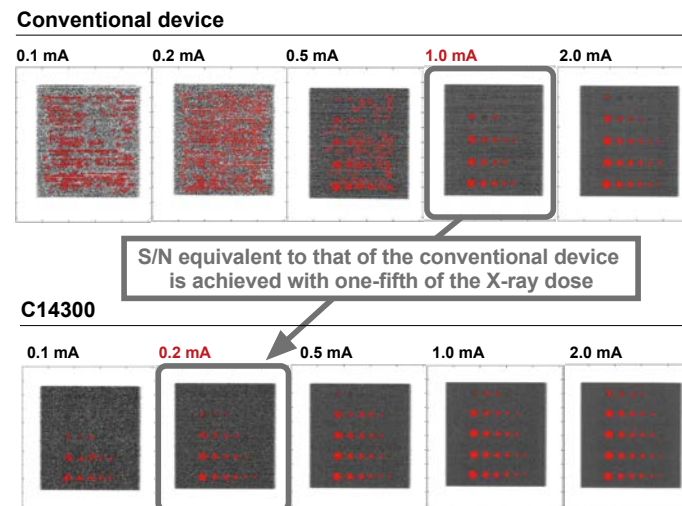
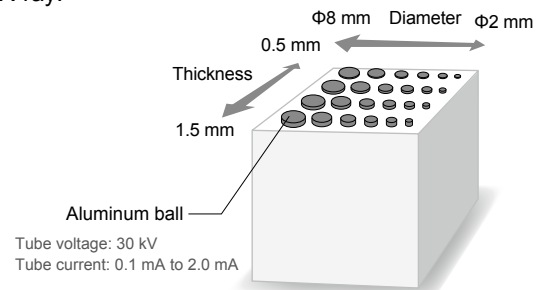
[Pasta sauce]

C14300 series can detect foreign objects and air bubbles inside retort food products.



High signal detectability under low power X-ray

With the aluminum disk positioned on top of 60 mm thickness cube made of PET, we compared the detection accuracy between the conventional model and C14300. As a result, C14300 found to achieve the same S/N imaging with the conventional model by one-fifth dose of X-ray.

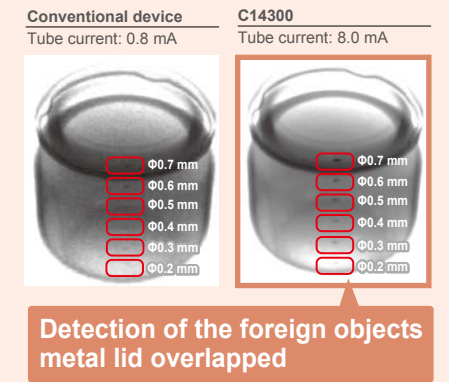
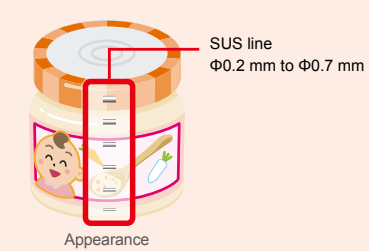


Inspection of thick sample

Increased full well capacity supports a thick sample inspection

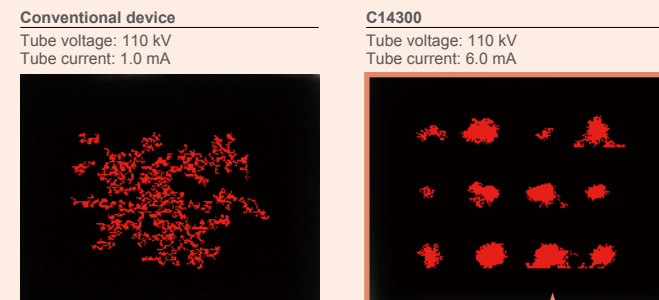
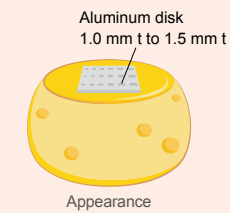
[Baby food]

Handling a wide range of signals under high X-ray makes it possible to detect even the metallic foreign objects which metal lid overlapped.



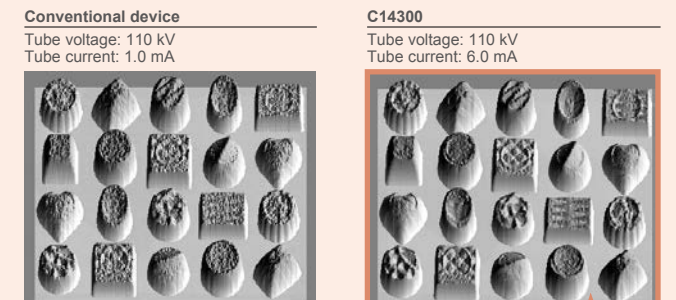
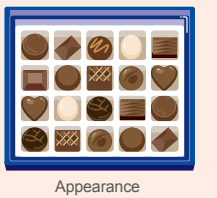
[Cheese]

Handling a wide range of signals under high X-ray makes it possible to detect the foreign objects even inside the thick and high density samples such as cheese.



[Chocolate]

Not only the detection of foreign objects inside a box of assorted chocolates, but also the weight measurement and shape inspection of each piece, impossible by the mechanical weight checker, is available now.



[Yogurt]

In addition to the detection of foreign objects in a yogurt, measurement of weight for each cup is available with high accuracy.

