

Anritsu

# XR76 Series

Performance Redefined



**XR76**  
X-ray Inspection System

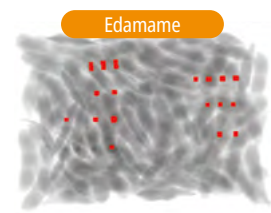
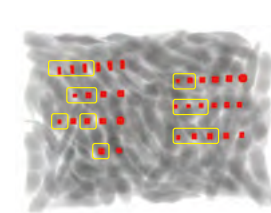
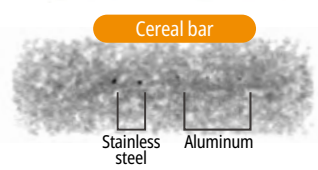
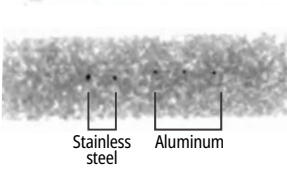
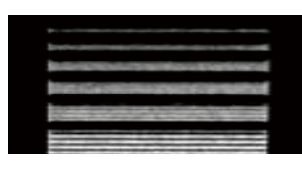


The XR76 Series sets a new level of performance, shaped directly by customer feedback. Designed for efficiency and reliability, this next-generation system delivers peace of mind through five key improvements: enhanced detection, fewer false rejects, a modern user-friendly HMI, simplified 1-step setup, and improved performance at high speeds. Whether you're battling labor shortages or aiming for higher throughput, the XR76 brings advanced operation and better protection to your production line.

## Next-Generation Detection

A new high-performance X-ray sensor provides dramatically improved image resolution and clarity, boosting contaminant detection by up to 40%. This allows for high-precision detection of smaller metal and low-density foreign materials (e.g., stones and glass) that were previously difficult to identify.

### PERFORMANCE COMPARISON

| Previous Model                                                                                                                           |                                                                                         | XR76                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|  <p>Edamame</p>                                       | <p>The XR76 (on the right) detected smaller metal and low-density contaminants.</p>     |                                     |
|  <p>Cereal bar</p> <p>Stainless steel    Aluminum</p> | <p>The XR76 does a visibly better job of clearly imaging the aluminum contaminants.</p> |  <p>Stainless steel    Aluminum</p> |
|                                                       | <p>X-ray test pattern shows the improved sharpness and resolution of the XR76.</p>      |                                     |

# Efficiency & Sustainability

Anritsu's XR76 Series is designed to help food and pharmaceutical manufacturers overcome key industry challenges, including labor shortages, rising costs, and achieving sustainability goals by limiting food waste.

## Labor-Saving Operation

- Intuitive, redesigned user interface
- Reduced false rejects, minimizing rework
- Simplified operation minimizes operator training and setup time

## Maximize Uptime

- Durable, long-life components
- Less frequent servicing enabled by ALL (Advanced Long Life) technology

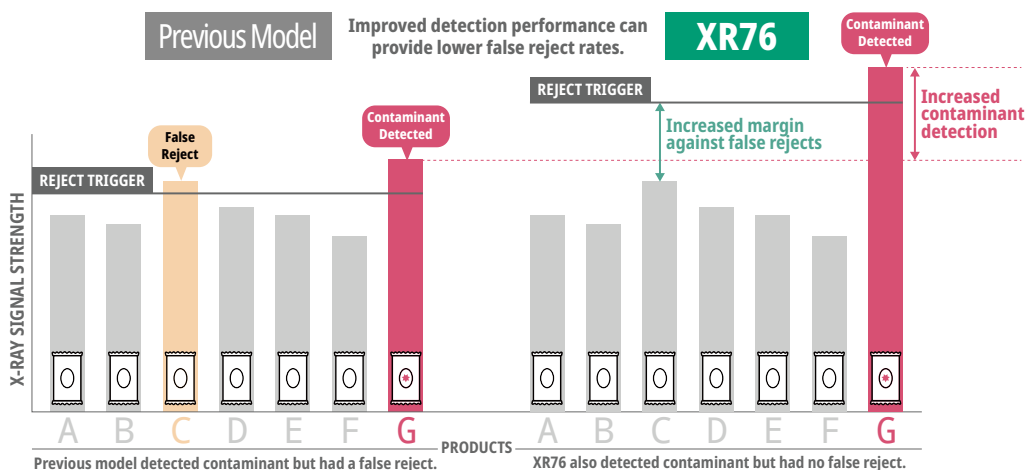
## Lower Food Waste

Reduced false reject rate improves production yield and minimizes food waste, contributing to increased sustainability.



## Reduced False Rejects

Enhanced detection allows you to easily balance false reject rates and detection sensitivity. Lower false reject rates improve yields, reduce costly rework (internal or external), increase operational efficiency, and minimize food loss.



### Test Example

We compared false reject rates on over 5,000 product samples. The XR76 demonstrated a significant reduction in false rejects while also delivering improved contaminant detection performance.

**XR76 reduced false rejects by over 80%.**

| Metric                   | Previous Model | XR76         |
|--------------------------|----------------|--------------|
| Total Inspections        | 5318           |              |
| PASS count               | 5311           | 5317         |
| Number of False Rejects  | 7              | 1            |
| <b>False Reject Rate</b> | <b>0.13%</b>   | <b>0.02%</b> |

## ✓ 1-Pass Product Setup, 1-Touch Adjust

### 1-Pass Product Setup

Compared to the standard setup that requires 10 product passes, 1-Pass Product Setup allows you to create a product recipe in seconds. The 1-Pass feature does its best to balance performance and false reject rate. While 1-Pass offers a fast and efficient solution, a full learn is recommended for optimal performance.



### 1-Touch Adjust

To adjust detection sensitivity, simply tap the 1-Touch Adjust button for an automatic recalibration. This quick fix is useful if you experience a false reject.

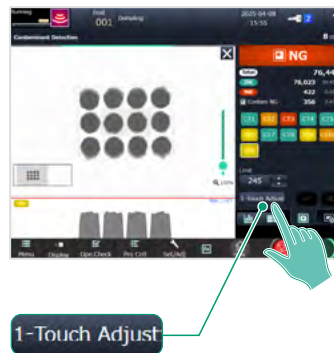
#### Previous Models



Longer adjustment time



#### XR76



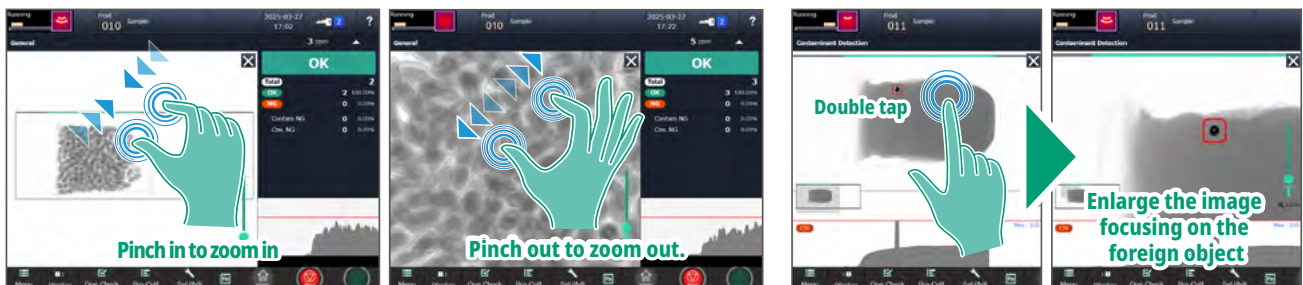
Just press the "1-Touch Adjust" button, and everything is set!



Note that 1-Touch Adjust may impact detection performance. Users should confirm with their quality team that the system continues to comply with applicable HACCP specifications.

## ✓ Modern, User-Friendly HMI

The redesigned interface is highly responsive, offering smartphone-like operation. Users can pinch in and out to zoom, double-tap to enlarge, and swipe to navigate menus with ease.



## Improved High-Speed Performance

XR76 performance enhancements, driven by an improved sensor scan speed, allow full detection sensitivity at up to 80 m/min with no image compression. This makes it perfect for today's increasingly higher line speeds.

### Previous Models

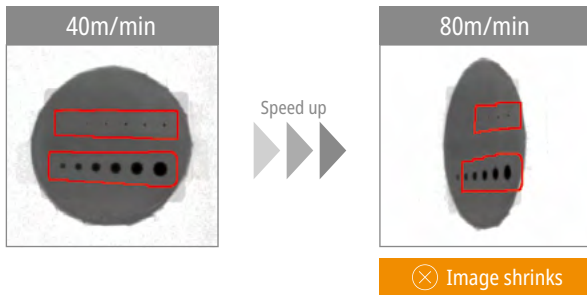
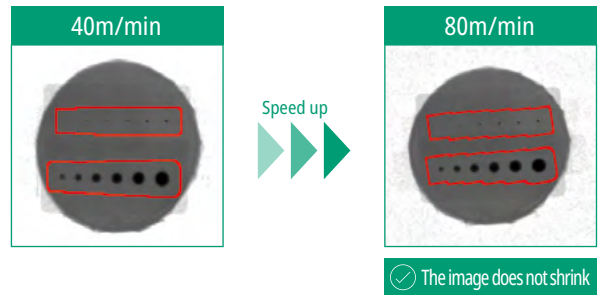


Image compression at high speeds reduces sensitivity.

### XR76



No sensitivity loss with XR76.

## A.L.L. Technology: Minimizing TCO and Downtime

Building upon the highly regarded A.L.L. (Advanced Long Life Technology) from the XR75 series, the lifespan of the X-ray source and sensor has been dramatically improved, achieving over 2.5 times the longevity of previous models. This figure, based on preventive replacements, suggests that actual lifespan is even longer, ensuring stable performance over extended periods. Furthermore, the adoption of a specialized sealed structure has reduced the failure rate of key electrical components to approximately one-third. By decreasing the frequency of component replacements and failures, both lifetime costs and downtime are effectively minimized.

### Achievements of A.L.L.

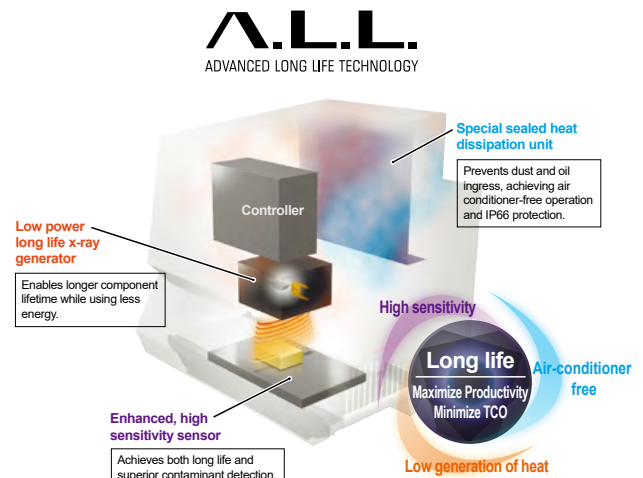
(Comparison with the KD74 Series)

#### X-ray generator, X-ray sensor

Average Lifetime  
Over 2.5 times longer

#### Major electrical components

Failure Rate  
approx. 1/3 reduction



## Additional Capabilities

In addition to detecting contaminants, the system can simultaneously perform tasks such as shape analysis and identifying missing products. In the XR76 series, shape recognition capabilities have been significantly enhanced to support high-speed production lines.



Crack detection



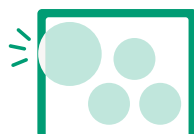
Chip detection



Missing product detection



Relative mass inspection

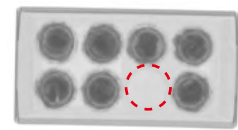


Seal inspection

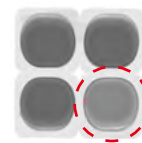
### X-ray images



Broken sausage



Missing chocolate



Insufficient filling of yogurt

Anritsu believes customer safety is of utmost importance.

### Anritsu safety mechanism

#### Emergency stop switch

Cuts power to x-ray and drive circuits, stops the conveyor and x-ray radiation.

#### X-ray ON/OFF key

Turning the key to OFF stops x-ray radiation completely.

#### X-ray shield cover open/close sensor

Opening the cover stops x-ray radiation.

#### X-ray shield cover

Opened/Closed using x-ray Irradiation ON/OFF Key.  
Opening the cover stops x-ray radiation due to the x-ray Shield Cover Open/Close Sensor.



#### X-ray irradiation display

The lamp is lit during x-ray radiation.

#### Leakage prevention curtain

Prevents x-ray leakage. For unpackaged or bulk products, the standard lead impregnated curtains are replaced with SUS covers - preventing direct food contact with the curtains.

#### Hand insertion sensor

Interrupting the sensor for a certain period of time stops x-ray radiation.

### Safety management

X-ray inspection system has been designed to fully satisfy the safe operation. However, to ensure even higher safety, use the safety procedures outlined below.

#### ① Periodic measurement and recording of x-ray leakage data

#### ③ Additional safety measures

Covers may need to be mounted on upstream and downstream conveyors instead of the shield curtains, depending on the shape, weight, and package of products.

#### ② Management of operator working hours

#### ④ No disassembly or modification

NEVER modify or disassemble the main unit, covers, x-ray leakage prevention curtains, safety covers, safety interlocks, etc., otherwise the x-ray leak-proof design may no longer be functional.

### X-ray radiation safety

#### Safety of inspected products

According to the World Health Organization (WHO), "irradiation of any food commodity up to an overall average dose of 10 kGy presents no toxicological hazard and introduces no special nutritional or microbiological problems." \*

The maximum dose of x-ray radiation to the products moving through Anritsu x-ray inspection systems is 2.0 mGy, which is 5 million times lower than the WHO threshold.

\*Wholesomeness of Irradiated Food: Report of a Joint FAO/IAEA/WHO Expert Committee, 1980

#### Safety of humans

The average U.S. resident receives a total radiation dose of 6.2 mSv/year (620 mRem). About one third (2.4 mSv/240 mRem) of that annual radiation derives from natural sources like the sun and soil. The rest comes from manmade sources like medical procedures (a typical chest x-ray generates about 0.1 mSv/10 mRem) or air travel (a round trip flight from New York to Tokyo is about 0.2 mSv/20 mRem).

Throughout the world, most governments consider 20–50 mSv/year (2,000–5,000 mRem) to be safe for occupational workers. Anritsu cabinet x-rays are engineered to meet some of the strictest emission standards in the world. A typical Anritsu x-ray solution is designed for maximum dosage of 2.0 mSv/year (200 mRem) This is based on the improbable scenario of a worker continually being 2 inches (5.08 cm) from the x-ray machine 2,000 hours/year (40 hours/week × 50 weeks). For typical work environments, the actual radiation dose from the cabinet x-ray to the worker is negligible.

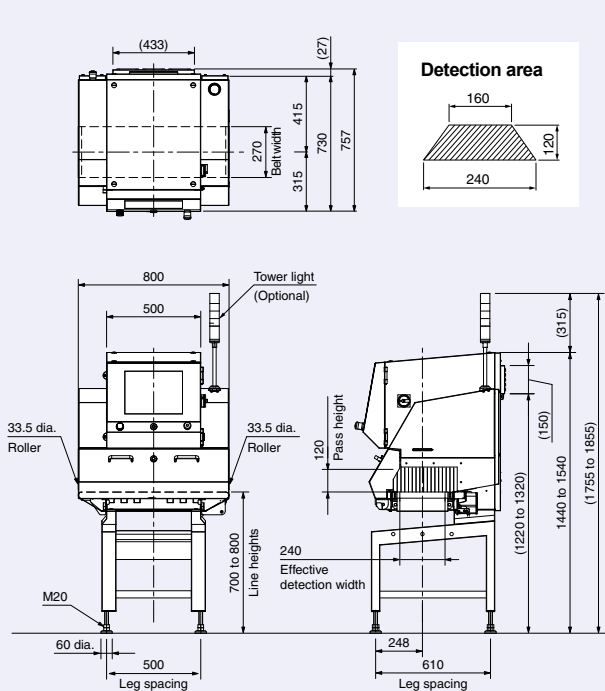
*Note: Please follow the local laws and regulations regarding the installation and use of the x-ray inspection systems.*

## Standard models

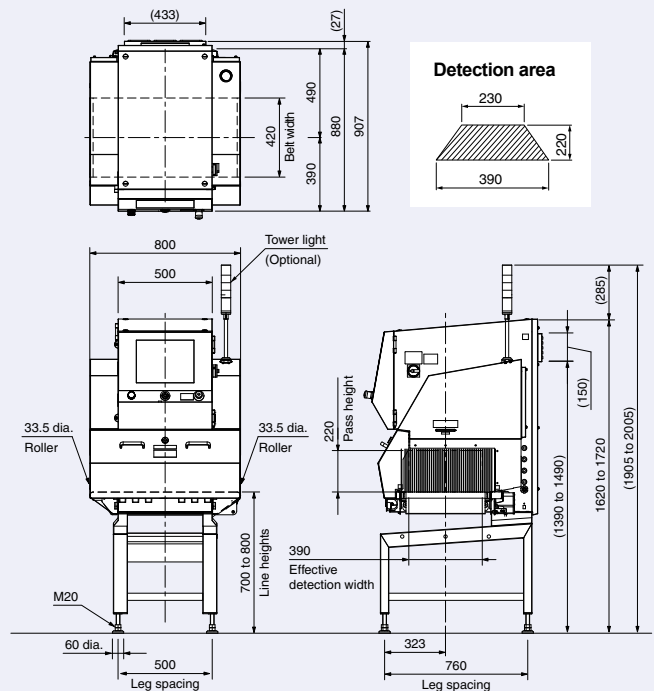
For small or medium sized packaged products.



**KXS7622AVCTV**



**KXS7634AVCTV**



Units: mm



| Model                                                  | KXS7622AVCTV                                                                                             | KXS7634AVCTV                                |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Detection area <sup>1, 2</sup>                         | Maximum width 240 mm, maximum height 120 mm                                                              | Maximum width 390 mm, maximum height 220 mm |
| Belt width                                             | 270 mm                                                                                                   | 420 mm                                      |
| Conveyor speed/<br>Maximum product weight <sup>3</sup> | 10 to 60 m/min, maximum 5 kg<br>61 to 90 m/min, maximum 2 kg                                             | 10 to 60 m/min, maximum 5 kg                |
| Mass <sup>4</sup>                                      | 230 kg                                                                                                   | 290 kg                                      |
| Display                                                | 15-inch LCD with capacitive touch panel                                                                  |                                             |
| Exterior                                               | Stainless steel (SUS304)                                                                                 |                                             |
| Preset memory                                          | 200 or 999 (Switchable)                                                                                  |                                             |
| X-ray output                                           | Tube voltage 30 to 80 kV, tube current 0.4 to 3.3 mA, maximum 100 W                                      |                                             |
| Safety                                                 | X-ray leakage maximum 1.0 $\mu$ Sv/h or less, prevention of x-ray leakage by safety devices              |                                             |
| Environmental conditions                               | Temperature: 0 °C to 35 °C, Humidity: 30 % to 85 %, non-condensing                                       |                                             |
| Power requirements                                     | 100 Vac to 240 Vac, single phase, 50/60 Hz, 700 VA or less, Allowable power fluctuation range $\pm$ 10 % |                                             |
| Protection class                                       | IP66 <sup>5</sup>                                                                                        |                                             |

1: The product size should fall below the detection area shown in the above external dimensions.

2: The entrance and exit may require covers depending on the length of a product.

3: Sum total of product weight on the conveyor.

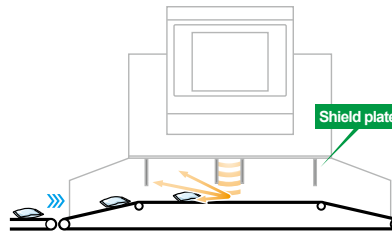
4: Mass without option.

5: Waterproof protection class is equivalent to IPX6, excluding the duct. Dustproof protection class is equivalent to IP6X excluding negative pressure condition.

Note: The noise level of the KXS7622AVCTV is 72 dB(A) in terms of A-weighted sound pressure level. The noise level of the KXS7634AVCTV is 70 dB(A) in terms of A-weighted sound pressure level.

## Incline/decline conveyor models

For non-packaged goods or small, lightweight packages unsuitable for the Divided conveyor model due to conveying and detection sensitivity.

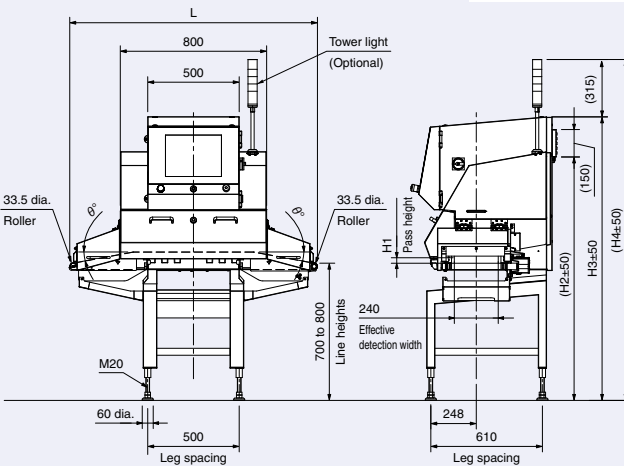
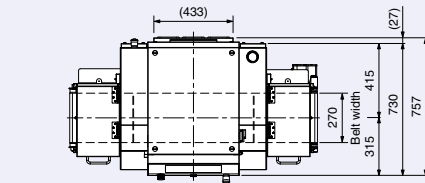
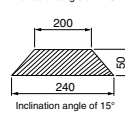
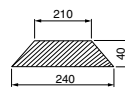
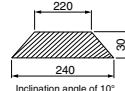


\* Coming soon – please contact for availability details.

### KXS7620CVCTV

| $\theta^\circ$ | L    | H1 | H2   | H3   | H4   |
|----------------|------|----|------|------|------|
| 10°            | 1355 | 30 | 1330 | 1550 | 1865 |
| 12.5°          | 1350 | 40 | 1345 | 1565 | 1880 |
| 15°            | 1340 | 50 | 1360 | 1580 | 1895 |

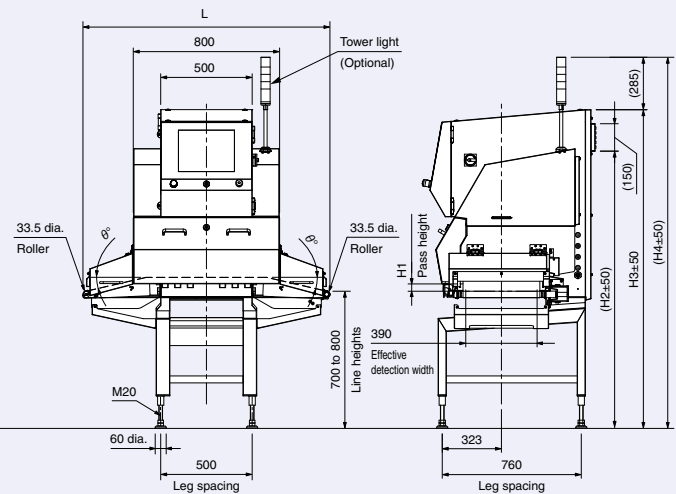
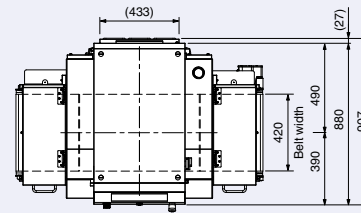
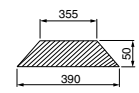
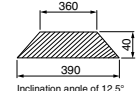
#### Detection area



### KXS7630CVCTV

| $\theta^\circ$ | L    | H1 | H2   | H3   | H4   |
|----------------|------|----|------|------|------|
| 12.5°          | 1350 | 40 | 1515 | 1745 | 2030 |
| 15°            | 1340 | 50 | 1530 | 1760 | 2045 |

#### Detection area



Units: mm

| Model                                                  | KXS7620CVCTV                                                                                             | KXS7630CVCTV                               |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Detection area <sup>1,2</sup>                          | Maximum width 240 mm, maximum height 50 mm                                                               | Maximum width 390 mm, maximum height 50 mm |
| Belt width                                             | 270 mm                                                                                                   | 420 mm                                     |
| Conveyor speed/<br>Maximum product weight <sup>3</sup> | 10 to 50 m/min, maximum 5 kg                                                                             |                                            |
| Mass <sup>4</sup>                                      | 255 kg                                                                                                   | 330 kg                                     |
| Display                                                | 15-inch LCD with capacitive touch panel                                                                  |                                            |
| Exterior                                               | Stainless steel (SUS304)                                                                                 |                                            |
| Preset memory                                          | 200 or 999 (Switchable)                                                                                  |                                            |
| X-ray output                                           | Tube voltage 30 to 60 kV, tube current 0.4 to 3.3 mA, maximum 100 W                                      |                                            |
| Safety                                                 | X-ray leakage maximum 1.0 $\mu$ Sv/h or less, prevention of x-ray leakage by safety devices              |                                            |
| Environmental conditions                               | Temperature: 0 °C to 35 °C, Humidity: 30 % to 85 %, non-condensing                                       |                                            |
| Power requirements                                     | 100 Vac to 240 Vac, single phase, 50/60 Hz, 700 VA or less, Allowable power fluctuation range $\pm 10$ % |                                            |
| Protection class                                       | IP66 <sup>5</sup>                                                                                        |                                            |

1: The product size should fall below the detection area shown in the above external dimensions.

2: The entrance and exit may require covers depending on the length of a product.

3: Sum total of product weight on the conveyor.

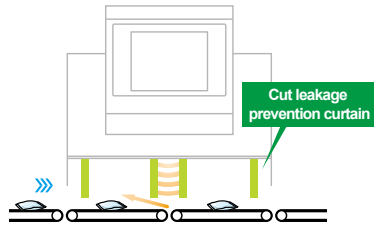
4: Mass without option.

5: Waterproof protection class is equivalent to IPX6, excluding the duct. Dustproof protection class is equivalent to IP6X excluding negative pressure condition.

Note: The noise level is 72 dB(A) in terms of A-weighted sound pressure level.

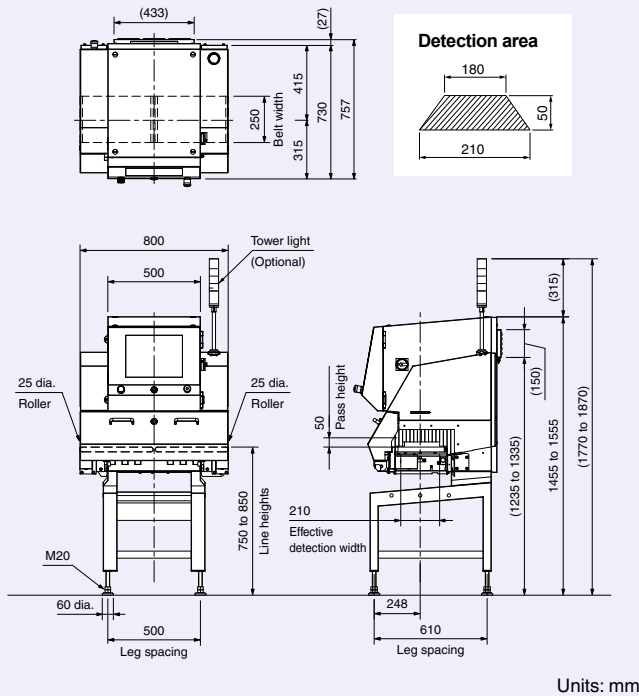
## Divided conveyor model

For high-speed lines handling small, lightweight packages.  
Compact machine footprint (800 mm long).



\* Coming soon – please contact for availability details.

### KXS7620DGBTV



#### Please note the following specification limitations for this model:

- Detection sensitivity may vary due to lower X-ray output.
- Maximum product weight is 2 kg.
- Conveyor section is not waterproof.
- 1-Pass Product Setup is not supported.

For further details, please contact our sales representative.

|                                                        |                                                                                                          |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Model                                                  | KXS7620DGBTV                                                                                             |
| Detection area <sup>1, 2</sup>                         | Maximum width 210 mm, maximum height 50 mm                                                               |
| Belt width                                             | 250 mm                                                                                                   |
| Conveyor speed/<br>Maximum product weight <sup>3</sup> | 10 to 90 m/min, maximum 2 kg                                                                             |
| Mass <sup>4</sup>                                      | 235 kg                                                                                                   |
| Display                                                | 15-inch LCD with capacitive touch panel                                                                  |
| Exterior                                               | Stainless steel (SUS304)                                                                                 |
| Preset memory                                          | 200 or 999 (Switchable)                                                                                  |
| X-ray output                                           | Tube voltage 50 kV, tube current 0.4 to 0.5 mA, maximum 25 W                                             |
| Safety                                                 | X-ray leakage maximum 1.0 $\mu$ Sv/h or less, prevention of x-ray leakage by safety devices              |
| Environmental conditions                               | Temperature: 0 °C to 35 °C, Humidity: 30 % to 85 %, non-condensing                                       |
| Power requirements                                     | 100 Vac to 240 Vac, single phase, 50/60 Hz, 700 VA or less, Allowable power fluctuation range $\pm$ 10 % |
| Protection class                                       | Conveyor: IP40 <sup>5</sup> , Other parts: IP66 <sup>6</sup>                                             |

1: The product size should fall below the detection area shown in the above external dimensions.

2: The entrance and exit may require covers depending on the length of a product.

3: Sum total of product weight on the conveyor.

4: Mass without option.

5: Waterproof and dustproof protection class is designed in accordance with IEC60529.

6: Waterproof protection class is equivalent to IPX6, excluding the duct. Dustproof protection class is equivalent to IP6X excluding negative pressure condition.

Note: The noise level is 72 dB(A) in terms of A-weighted sound pressure level.



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**ANRITSU INFIVIS INC.** <https://www.anritsu.com/product-inspection>

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- Some products shown in this catalog may not be available in your country or region. Contact our sales representatives for details.
  - To ensure proper operation, read the Operation Manual before using the machine.
  - In addition to daily inspection, a full maintenance inspection should be completed annually.

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