

Products Quality Assurance Brochure

Introduction of Products Quality Assurance



Vision

With you, whatever the challenge

No matter how your quality assurance demands increase, we will be a dependable partner, bringing peace of mind to every aspect of your production.

Over the years, we've built world-leading technological ability and global expertise in stringent QA fields such as food and medicine.

We never stop improving. We work continuously with you to develop even better inspection technologies, optimize performance, and deliver new value throughout the production process. We will be by your side, from the first step to the completion of your manufacturing chain.

Together, we can realize the true potential of QA for everyone



ANRITSU INFIVIS

Initiatives to Tackle New Challenges

Challenge 1 Improving Inspection Sensitivity with Artificial Intelligence

One example is detecting insects in food using transmission X-ray imaging. Although humans can intuitively spot shapes that look like insects, it is surprisingly difficult for machines to do the same. Our challenge is to dramatically improve inspection sensitivity by advancing research into next-generation inspection technologies using artificial intelligence.



Challenge 2 Overall Quality Assurance System Using Big Data

Inspection and production data from production lines can contain hints for calibration of manufacturing equipment, the yields of which vary subtly in response to daily changes in temperature and humidity. Our challenge is to create an overall quality assurance system that uses big data to both improve yields and ensure quality at high levels.



Challenge 3 Extending Scope of Inspection

We have innovated in the space of signal processing and sensing technologies for over half a century. Even so, automation is still no match for visual inspection by humans in some areas. Our challenge is to continue to research a wide range of electromagnetic wavelengths, develop new sensing technologies, and create inspection equipment that equals or exceeds the performance of visual inspection, in order to help reduce human labor.



> Other businesses



TEST AND MEASUREMENT | COMPONENTS AND ACCESSORIES | SERVICE ASSURANCE | SENSING AND DEVICES



Products Quality

Helping you advance your quality program

Anritsu continues to develop solutions to ensure that the highest quality products reach your consumers.

Our offerings go beyond industry-leading inspection equipment to include maintenance & training programs, data/networking solutions, and 24/7 service and support.

Anritsu Inspection Portfolio

Inspection

Foreign objects (metals, glass, stones, ceramic, bones)
Weight (under/over, grading)
Product defects (missing, counts, shape)
Packaging defects (product in seal)

IT/Data

Software for equipment status & reporting (QUICCA)
Quality records (data and image archiving)
Remote access & monitoring
Remote maintenance support

Training & Documentation

Seminars and support for operation, maintenance, creating IQ/OQ, and traceability

Maintenance & Service

Inspections, 24/7 phone support, parts, equipment installation & setup, predictive maintenance programs, and field repairs

Engineered Solutions

Custom designs optimized for specific applications and needs

Validation

Confirm HACCP specification and machine operation

Reject CCP Kits

HACCP compliance kit (lockable bin, reject verification sensor, low air pressure sensor, and bin full sensor)

Assurance

Capabilities & Industries

Anritsu helps ensure the safety and integrity of products in a broad range of industries and applications. Inspection may occur throughout manufacturing—from incoming raw ingredients through preparation & processing to final packaging.

Inspection Capabilities

- Contaminant inspection: Detection of metals, bone, glass, ceramic, and other unwanted foreign materials
- Content check: Missing/present, under/over, and counts
- Package check: Product in seal, defective printing
- Weight inspection: Quantitative check, grading
- Weighing: High-speed automated weighing (single & multi-lane)
- Production and quality management: Centralized control, monitoring, statistical analysis, traceability (QUICCA)

Primary Industries Served

- Food: Raw/fresh to processed, bulk to packaged, plants to proteins
- Pharmaceutical: Patches, blister packs, capsules/tablets
- CPG: Cleaning, personal hygiene, health, apparel, household



We tackle our customers' complex and diverse challenges.

The food and pharmaceutical fields are expanding at an accelerating pace, accompanied by increasing demands for higher product quality. As our customers' quality challenges grow, we are working together to push the inspection envelope through steady improvement and groundbreaking innovations. We will continue to take on new challenges and break down barriers to be our customers' trusted quality assurance partner.

Masumi Niimi, Senior Vice President at ANRITSU CORPORATION, Infivis Company President

The relentless pursuit of perfection

High-speed weighing with milligram precision is hard. But discovering innovative solutions to formidable problems is what Anritsu does best.

As an example, Anritsu applied its signal processing and engineering expertise to develop a new scale from the ground up in-house. Not content to simply replicate industry standards, the scale went through years of simulations and design iterations.

Directed by Anritsu's uncompromising attention to detail, the Anritsu scale is now one of the world's most accurate weighing solutions.

Challenge



When only the best will do

Anritsu scale development focused on the following core features:

High rigidity: Precision analysis of loading in the vertical, horizontal, and torsional directions, and increased rigidity created the optimum mechanism for dynamic weighing.

Advanced signal processing: Improved responsiveness by eliminating vibration noise to greatly increase accuracy.

Thermal change resistance: Precise thermal analysis and dynamic corrections reduced weighing fluctuations due to environmental temperature changes.



The heart of Anritsu solutions

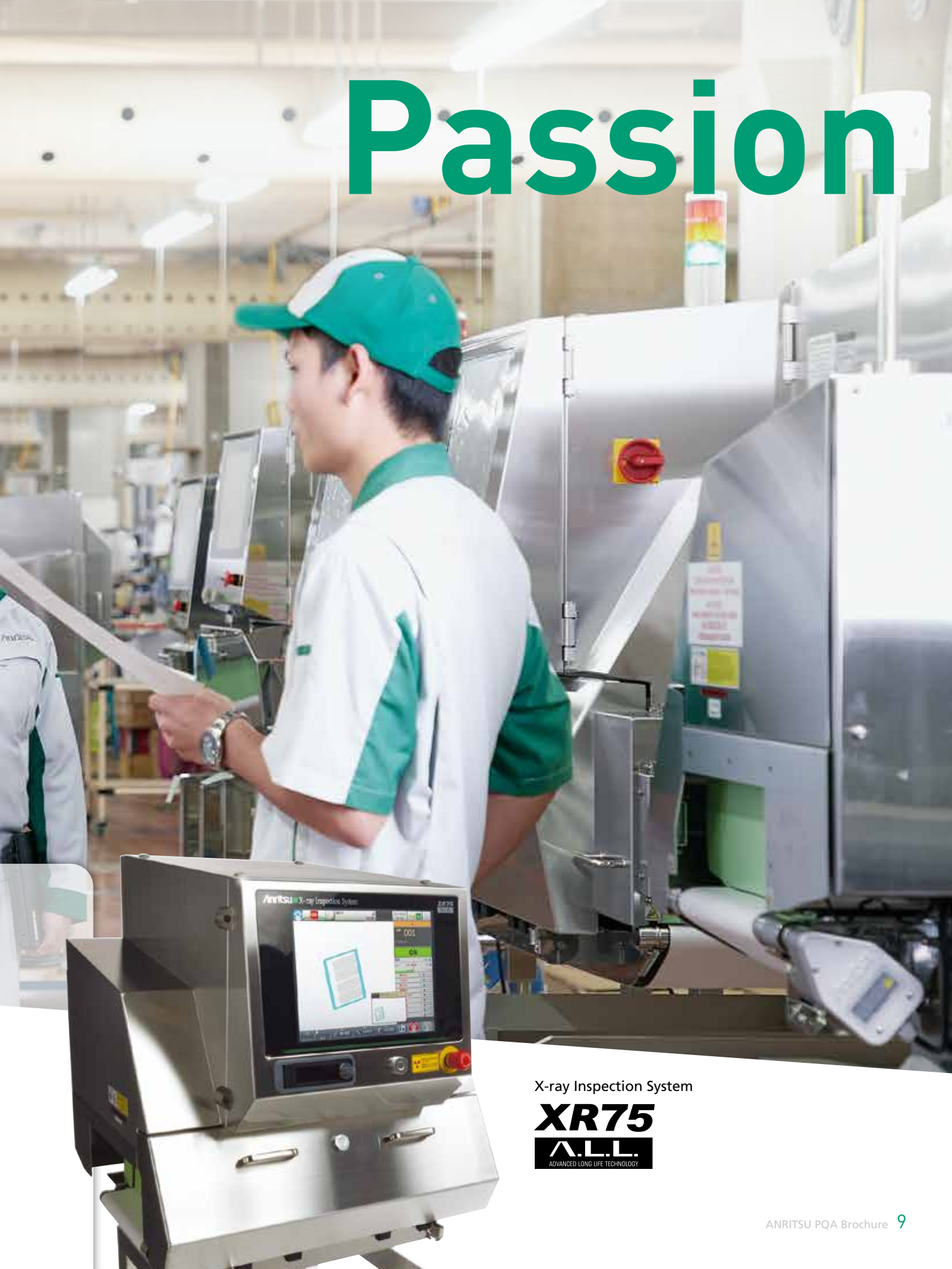
Anritsu is defined by its passion to create a Positive Anritsu Customer Experience (PACE).
Every employee is focused on providing the best inspection solutions possible.



How Anritsu set the standard for x-ray performance

When X-ray inspection systems first appeared, they had many challenges, including equipment size, operating costs, detection capabilities, operating speed, and environmental limitations. We applied the Japanese philosophy of **Kaizen**—continuous, systematic, incremental improvements—to ultimately bring about major advances in quality and efficiency. Anritsu's x-ray inspection systems have since evolved into the best detection available with the most food inspection installations worldwide.

Passion



X-ray Inspection System

XR75
ALL
ADVANCED LONG LIFE TECHNOLOGY

The Anritsu team

With 50+ years of experience in inspection, Anritsu has a wealth of knowledge at its collective fingertips. Having development, manufacturing and support under the same roof facilitates the sharing of expertise, quick communication of service issues, and creation of collaborative solutions for our customers.



Peace of mind

Responsiveness



Every second of your operation is critical to achieving your goals. Anritsu is ready to support you 24/7 with technical specialists cross trained on all our equipment. Anritsu has industry leading service response times and first-time fix rates to get you quickly up and running, should you need it.



Techs have full access to all our equipment to guide customers through any operational issues.



Anritsu offers customer training on-site and at our facilities, ensuring that operators, maintenance, engineers, and quality managers understand how to use and maintain our equipment.

A world of support from a global powerhouse

As a large, international company with touch points in over 60 countries and 100+ years in business, you can count on Anritsu to be there for you. We coordinate closely with our local development sites, manufacturing plants, and sales teams to create the best solutions for our customers.



Global Supply Chain Management



To better serve you, we are strengthening our supply chain with subsidiaries and affiliates around the world. This enables us to better develop and deliver products aligned with your regional requirements.



Anritsu Thailand
Manufactures metal detectors for worldwide distribution and supports Anritsu in Southeast Asia.



Anritsu China
Manufactures metal detectors and checkweighers for the Chinese market only.

Design heritage

In the early 1960s, Anritsu developed a high-sensitivity displacement sensor that gave rise to our first checkweigher (shown below). Since then, our checkweighers have grown to be among the world's finest, and we have added x-ray and metal detection product lines.

Innovation



Since 1964

Anritsu's checkweigher is based on an "electronic micrometer" that measures displacement electrically at the micrometer scale. Leveraging the high-speed response of the electronic micrometer, Anritsu created a scale that could weigh items with a high degree of accuracy while they moved rapidly on production lines. Our first checkweigher, K501A, was equipped with this scale and launched in 1964.



Electronic Micrometer—1961
Anritsu developed its checkweighers from the technology it created with this early micrometer that measured object dimensions.

1895

Anritsu's Founding



[Left] Morse code printer (1897)



[Right] Japan's first public telephone booth (1900)

Anritsu's predecessor, Sekisan-sha, was founded around the time when Marconi successfully created a wireless telegraph using radio waves, and Roentgen successfully made an X-ray photograph. It manufactured communication devices, such as Morse code printers and telephones.

Anritsu's history traces the same path as that of signal-processing technology, with a focus on communications.



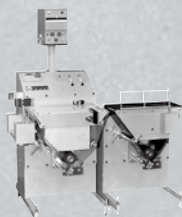
[Left] Marconi's trans-Atlantic wireless communication experiment



[Right] X-ray photograph by Roentgen

1964

From Sensing Technology to Innovation in New Markets



Checkweigher K501A (1964)

During Japan's postwar economic growth period, packaged foods became popular. Our checkweighers, which could rapidly perform weight check in-line, helped automate factories, especially in foods and pharmaceuticals.



Checkweigher for Capsules K515 (1970)

The K515 was Anritsu's first checkweighing specialized for capsule pharmaceuticals, which require strict weight control. It boasted the capability to check 600 capsules per minute with an accuracy of ± 2 mg.



[Left] Anritsu's measuring instrument inspection line from that time



[Right] A tabletop electronic calculating machine from that time. Our first Checkweigher was born not long after the advent of electronic calculators.

1970

Meeting Needs with High-level Issue Resolution



Checkweigher 8 Series (1970)

As checkweigher demand increased with accelerating factory automation, Anritsu checkweighers were huge hits, reaching the point where they were considered the de facto standard of the time.



An Anritsu checkweigher/metal detector combo at a French factory in the mid-1970s

1990

Innovation in Sensing



Metal Detector KD80 Series (1991)

Anritsu's KD80 metal detector was the world's first to be equipped with automated phase adjustment, which previously required manual adjustment by experienced operators.



X-ray Inspection System KD72 Series (2000)

In a time when x-ray inspection systems were large and expensive, The KD72 was compact and nearly half the price, contributing to the wider adoption of x-ray inspection systems around the world.



In the 1990s, as people's lives became enriched by the spread of mobile phones and other developments, consumers became more health conscious, and demands for food safety became stronger. Quality control became stricter, including the advent of the CE marking in Europe and the enactment of the Product Liability Act in Japan.



The rise of social media has ushered in an era when a single food incident can destroy a brand. Food makers are under pressure to create stricter quality assurance, including measures against malicious adding of contaminants. With recent rising global interest in sustainable society, reducing food loss is gaining attention as a new challenge.

2010

Creating Value through Total Quality Assurance



Overall Quality Management and Control System QUICCA (2007-present)

QUICCA extended the concept of systems that record and manage quality data. It included equipment monitoring, production analysis, and remote control. In the 2010s Anritsu added more features, evolving into a tool that supports our customers' entire production processes.



Europe

Austria
Belgium
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Italy
Latvia
Lithuania
Luxembourg
Netherlands
Norway
Poland
Portugal
Russia
Slovak Republic
Spain
Sweden
Switzerland
United Kingdom

Middle East and Africa

U.A.E.
Saudi Arabia
South Africa
Turkey

Asia and Oceania

Australia
Bangladesh
China
Hong Kong
India
Indonesia
Malaysia
Myanmar
New Zealand
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Sri Lanka
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(As of June 2021)

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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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