

Test and Measurement Business

Contributing to the advancement and enhancement of social infrastructure with high-speed communications networks leveraging cutting-edge 5G technology

Accelerating Initiatives for the New Society that 5G Will Support

With the launch of 5G, we are at a point where anyone can receive high-level services regardless of where one lives as high-speed and high-capacity wireless communication is now available. As the importance of the Internet has been reaffirmed in the COVID-19 pandemic, 5G is expected to undergo further developments as infrastructure supporting new ways of living.

Anritsu's Test and Measurement Business provides the global market with test and measurement systems that are crucial for establishing and expanding the use of sophisticated communications technology. As a partner to our customers, we will contribute to the development of information and communications technologies, such as 5G, and create test solutions to solve problems in new applications and use cases for communications technology. As we do so, we will accelerate initiatives for addressing the needs of a communication-oriented society.

Business Areas

Since Anritsu was founded, and over our long history, we have contributed to the evolution of communications technology through innovations that have paved the way for the future of information and communications and by providing society with original and high level products. The Test and Measurement Business delivers test instruments and test systems to customers worldwide. These instruments and systems are essential for the quality assurance of communications equipment and facilities that are the core elements of communication network infrastructure.

- Providing test solutions for all phases in the mobile communications market, as represented by smartphones, including chipset development, device development, conformance testing and manufacturing inspections.
- Providing test instruments for development and manufacturing inspections to evaluate and assure the connectivity of communication modules installed in IoT devices such as vehicles, home appliances, and industrial equipment.
- Providing test instruments for performance evaluations and manufacturing inspections of network devices that deliver high-definition videos and images from data centers at high speeds over the Internet.
- Providing a wide range of wired and wireless test instruments for manufacturing, construction, and maintenance of various types of communication equipment and devices, including the base stations that make up mobile networks.

Takeshi Shima

Director,
Senior Vice President,
Test and Measurement
Company President



- Providing monitoring solutions that contribute to the improvement of network operations, including network failure analysis and capacity expansion, by visualizing the network operational status of telecommunications carriers.

Market Environment and Business Opportunities

In 2019, 5G services were first launched in the U.S. and South Korea, and now there are 213 commercial 5G networks of varying sizes provided in 85 countries. Last year, the number of subscribers was 220-230 million worldwide (led by China), and in one year this figure increased to 660 million (as of February 28, 2022, according to “Ericsson Mobility Report Q 4 Update February 2022” and “GSA May Edition”). The importance of communications services has risen further as the human race has been confronted with the global turmoil of COVID-19. Face-to-face interaction had been the norm for many types of sales and service activities that have now switched to online formats and there is demand for further development of 5G, as the infrastructure supports this new way of living. The range of fields utilizing 5G is showing breadth, and new services that are not public networks are beginning to emerge, such as local and private 5G. In addition to these services, remote control of devices and vehicles is also expected to expand the world of 5G utilization. With the advent of the metaverse, the realization of such social activities being carried out remotely (i.e., in a nonface-to-face economy) has become a reality. Going forward, it is predicted that there

will be test and measurement needs to establish a quality assurance mechanism to ensure high speed and low latency network connectivity for using state-of-the-art devices to deliver high-definition video and image information.

Growth Strategy

FY2021 Results

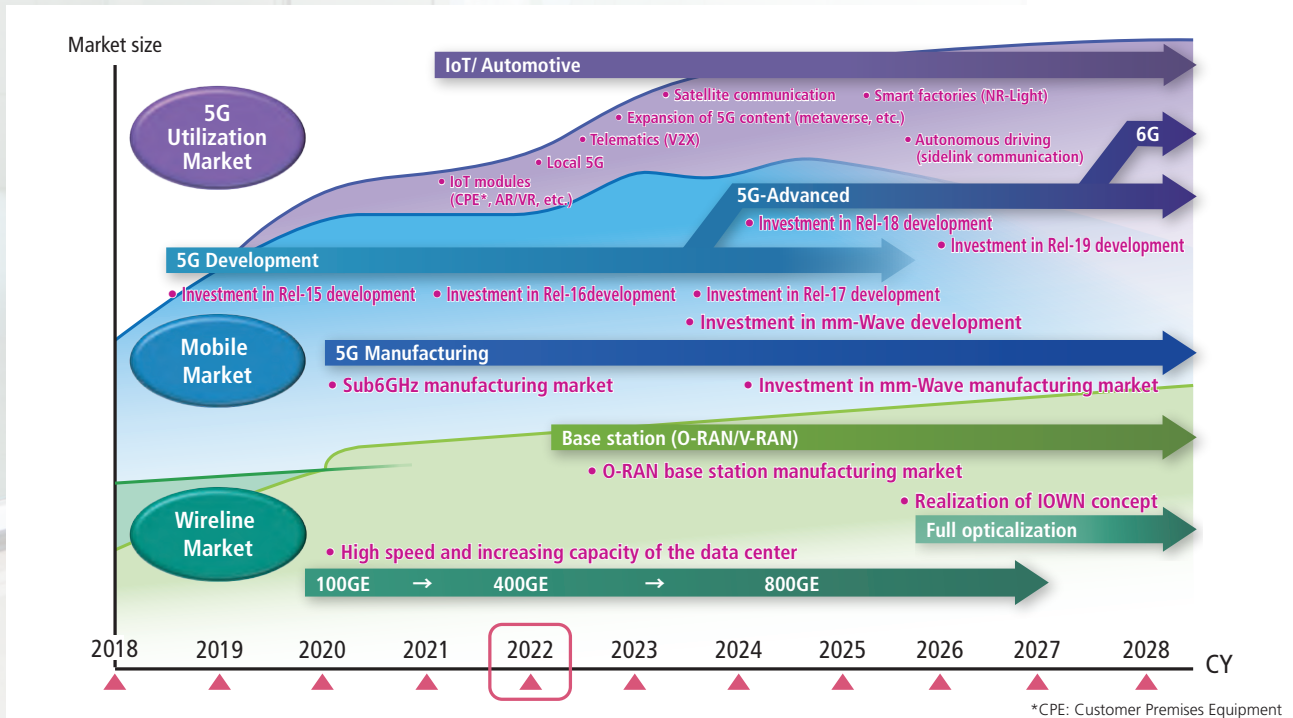
With revenue of ¥73.3 billion and an operating profit margin of 21%, we were not able to meet our initial targets for fiscal year 2021, the first year of GLP2023. In addition to delays in the commencement of C-band network installation in the U.S., the lockdown that began in China in late March and difficulties in procuring parts and materials, particularly semiconductors, had a major impact.

Even under such environment, being able to continue and extend collaboration with global customers pursuing development of cutting-edge technologies was a major success for us to accelerate efforts toward fiscal year 2023 and beyond. As in fiscal year 2020, COVID-19 restricted some of our activities, but our development plans progressed almost equivalent to the schedule as when there was no COVID-19 influence. In addition to the launch of a test system for base stations using the MT8000A (radio communication test station) platform, the latest functions were added to existing 5G and 400 GE solutions to meet customers’ cutting-edge needs.

Basic Policy for GLP2023

The GLP2023 targets considerable growth, with revenue of ¥100 billion and an operating profit margin of 23%.

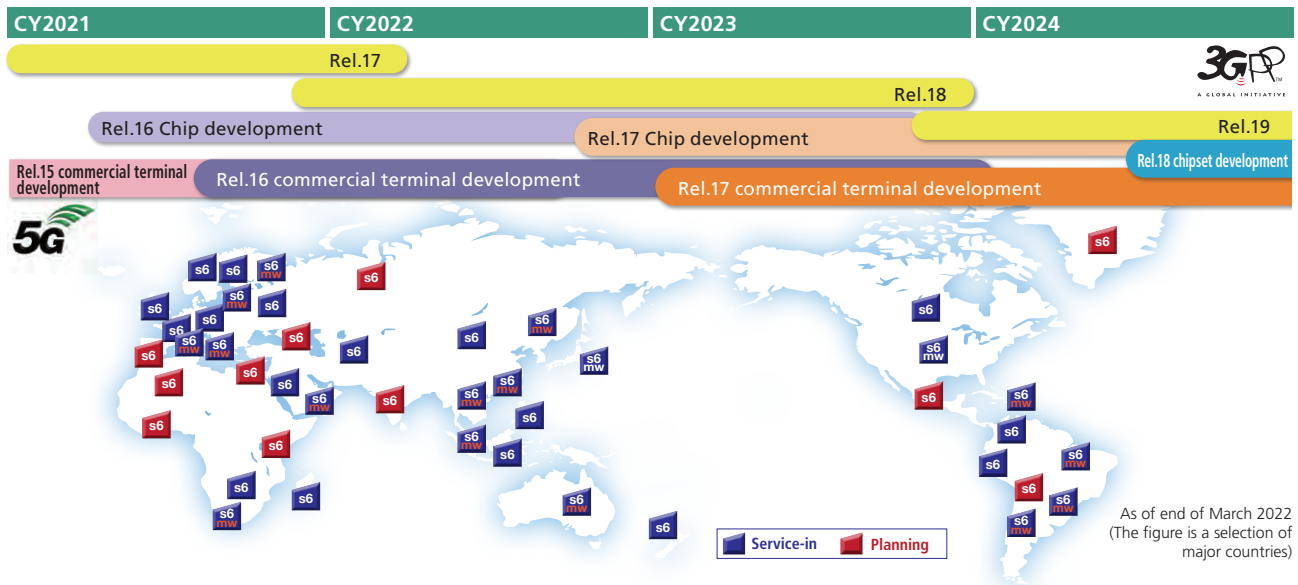
Test & Measurement Business: Mobile market trends and Business opportunity



Test and Measurement Business

|| Roadmap of 5G

* Created by Anritsu referring to publicly available information



Under our vision to become a “leading company supporting a communications society built on 5G” we accelerate our initiatives toward the peak of 5G smartphone-related business in 2023, and we also aim to expand our business in fields further developing 5G or derived from 5G. Adhering to the following three policies, we will continue to create solutions that contribute to a broad range of customers pursuing business leveraging communications technology. Therefore, we are placing priority on “co-creation” initiatives as well as collaborating and growing together with customers in each industry as we pursue those activities.

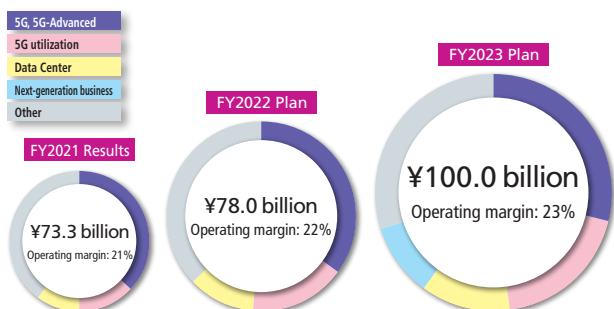
1. Increase the ratio of 5G utilization and solutions for the network infrastructure market within our business portfolio
2. Transform our business solutions from simple provision of “measurement” tools to provision of value by “resolving through measurement”
3. Increase investment in growth areas (5G-Advanced, self-driving vehicles, O-RAN/IOWN).

Of the three basic policies, we are particularly emphasizing the transformation of our business solutions to provide value by “resolving through measurement,” which we recognize as a formidable challenge. As the scope of 5G utilization broadens, there has been an increase in customers who are not skilled in communications technologies unlike traditional chipset or smartphone manufacturers. These customers are working on identifying what kind of business to develop using communication technologies, not on the communications technology itself. We must think of how the results from testing can be used to serve the businesses of these customers, and then convert them into new values. Through collaboration and co-creation, we are working with customers and partner companies involved in IoT, automotive, O-RAN, and local/private 5G in order to generate these values. We are adding the findings and the new knowledge gained from this process to Anritsu’s advantages, advanced and accurate test and measurement technologies, to expand the range of communications services and contribute to building a more sophisticated social infrastructure.

|| Test & Measurement Business: GLP2023 revenue and operating profit ratio plan

FY2022 Initiatives

- Capture 5G demand in Europe and U.S. markets
- Develop customers in the 5G IoT/automotive markets in Asia and North America
- Secure a foothold in next-gen businesses like O-RAN, 6G etc.



Human Resource Hiring and Training

With an untiring commitment to Anritsu’s concept of “Original & High Level,” we are striving to hire and train talented personnel who align with this commitment and come from a broad, global pool that spans solutions development, manufacturing, and sales. We have our development bases in the U.S., the U.K., as well as in Asia region. We are engaged in software-centered development in several countries. With regard to engineers, we are conducting thorough training in Japan (the home base for our development), and then assigning them to the development teams in other countries. Thus, under a consistent mindset based on company policies they pursue development effort taking into account the particular cultures and environments of

each country. With regard to manufacturing and sales as well, we are striving to strengthen governance as a global company while simultaneously engaging in personnel development through global trainings, meetings, and human resource exchange programs. The number of female employees working in development and marketing has increased and, going forward, we will further build out programs for advancing the careers of all employees.

Accumulating Intellectual Capital and Participating in External Organizations

In addition to acquiring patent rights for technology emerging from our development, we are also dedicating effort to attaining new technology by joining various external organizations.

Currently, we are members of the Third Generation Partnership Project (3GPP) for determining mobile communication standards, and some of our other affiliations include the following groups (for details on activities, please see the section of our website listing affiliations).

1. The Next Generation Mobile Networks Alliance (NGMN Alliance) for deliberating on the status of next-generation mobile communications
2. The Wi-Fi & Ethernet Standards Group, organized under the Institute of Electrical and Electronics Engineers (IEEE)
3. The Open Radio Access Network Alliance (O-RAN Alliance) for intelligent 5G communication networks and for devising open interface specifications
4. The Innovative Optical and Wireless Network (IOWN). A global forum for reviewing new communications platforms comprised of fully optical networks, and edge and wireless distributed computing

SDGs Undertaken by a Test and Measurement Company

For realization of social activities in the metaverse and automated driving services which have recently garnered much attention there will be many technological innovations required. By manufacturing and delivering value-added original and high level products for these fields, Anritsu is in agreement with Goal 9 of the SDGs "Build infrastructure, promote industrialization, and foster innovation". We will also grow our contribution to Goal 11 "Sustainable cities and communities" by expanding our business in 5G, including utilization via the IoT. In recent years, natural disasters, epidemics, aging populations, and other social issues that require solutions have been increasing. Advancement of communications networks like 5G have now been recognized as the tools for solving these issues. With such characteristics as high-speed, large-capacity, ultra-low latency, and massive simultaneous connections, 5G will be utilized in industries such as healthcare, agriculture, automotive, and disaster prevention so that it is expected to become a communications infrastructure that solves various social issues such as information disparity, traffic accident prevention, and labor shortages.

Anritsu's test and measurement technology supports the advancement and quality improvement of communications, thereby contributing to creating a more comfortable and convenient society. We will take part in Anritsu Group's effort of contributing to the "realization of social sustainability" by maximally utilizing not only 5G but also other technologies we own.

