



# WE SHARE THE SAME PASSION

**COMPANY PROFILE** 

YOKOGAWA TEST & MEASUREMENT CORPORATION





# PRECISION MAKING

Yokogawa has been developing the art of precision measurement for over 100 years – producing ever more precise and accurate measurement solutions to help developers turn ideas into successful products.

Precision means both high accuracy and reliable reproducibility and it expresses our desire to provide quality and service that meet the expectations of all our customers.

The facts speak for themselves:

- Global leader in power measurement, where accuracy and stability are essential.
- Global leader in the optical spectrum measurement industry.
- 1560 patents with the Global Patent Office.

Our goal is to support a more sustainable future – as the world gears up to cut pollution, save energy and reduce waste, we will provide the precision measurement technology industry needs.

Yokogawa - sustainability through precision.

# MESSAGE FROM TOSHIYUKI SUZUKI

**President Test & Measurement** 

Throughout our history, Yokogawa has innovated constantly. As the world has changed and industry and developers have made new demands, we have been there with the precision measurement technology they need. From electric power analyzers to data acquisition recorders and optical spectrum analyzers, we have always strived to meet new challenges.

The challenges facing us today are to continue to support industry as we all seek to build a more sustainable world. Cutting carbon emissions, supporting new optical communication technologies and infrastructures and minimizing waste are goals that precise measurement technology can help achieve.

It can also enrich people's lives, ensuring our health and work are better and safer. Our measurement devices are increasingly being used both in medicine and industry to promote well-being. As well as devices, we also offer a wealth of services, using our knowledge to help companies become more efficient and make better use of their resources. With the need to keep up with ever changing new technologies, we continue to invest in

innovative new services to support our measuring devices as we move towards 2030. We intend to transform our offering to provide an array of advanced and flexible solutions that can more easily analyze complex applications, combined with integrated services that provide complete lifecycle assurance.

What will not change is what we have always done for more than 100 years – that 'precision making' will remain at the heart of our people and what we do.

In these pages, we provide an overview of what we offer and where we are going. I hope you find it a useful guide to Yokogawa Test & Measurement and our ambition to use precision to build a more sustainable world together.









As Precision Makers, we work together to deliver solutions and services of the very highest standard.



















**WE ARE THE PRECISION MAKERS** 

















We deliver quality. We deliver accuracy. We deliver precision.







As individuals – and Making is our







### YOKOGAWA ELECTRIC CORPORATION

















<sup>\*</sup>Financial and employee figures are consolidated data.

# BUILDING ON A HISTORY OF INNOVATION

1915



Dr. Tamisuke Yokogawa, established an electric meter research institute in Shibuya, Tokyo

1917



First to produce and sell electric meters in Japan

1924

oscillograph

Developed Japan's first

portable electromagnetic

1950



Developed Japan's first electron tube-type self-balancing recorder

1980

First optical time domain reflectometer and optical spectrum analyzer developed



1974

First to sell digital power meters



1984

First to sell analyzing recorders



1988

Entered the highfrequency measuring instrument business





# Over 100 years of precision making.

1989

First to sell space-saving vertical type oscilloscope



Produced the first eight-channel

oscilloscope

1997

Introduction of ScopeCorders, a combination of oscilloscope with recorder



2013

Introduction of handy-type pressure/process calibrators



2015

Yokogawa celebrates its 100th anniversary



2021

Develops first Integrated Software Solution



YOKOGAWA 🔶

2018

Develops the award-winning next generation Precision Power Analyser



Introduction of high-resolution optical spectrum analyzers



Announced "Accelerate Growth 2023" mid-term business plan

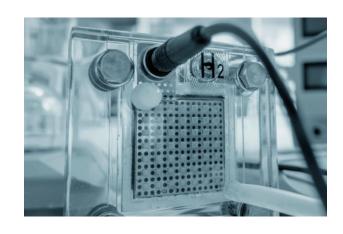
# **DECARBONIZATION**

- taking a key role in reducing carbon emissions

Our world is changing rapidly – and so is the way it is powered. As we move away from fossil fuels, Yokogawa is well placed to support sustainable electrical energy. Our dedication to precision measurement means we are ready to play a key role in reducing carbon emissions. A more sustainable world means one that is cleaner and greener. Transport is moving to electric power, which is increasingly generated from renewable sources. We also need to use that energy wisely by making consumer products and vehicles as efficient as possible.

# **Evolving power and waveform measurement**

Yokogawa's world class measurement products include power measurement solutions that deliver extraordinary precision and exceptional performance for the most demanding applications. Combined with our professional calibration services, we offer everything needed to develop highly energy efficient products and solutions.

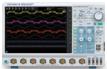


### **Powerful software solutions**

As power systems become more diverse and complex, analyzing them becomes an increasing challenge. Yokogawa can respond to these changes bringing together best-in-class hardware with an integrated platform software. We support and improve customers' development efficiency allowing rapid analysis and simple value checks from multiple measurement devices.

### Meeting new market demands

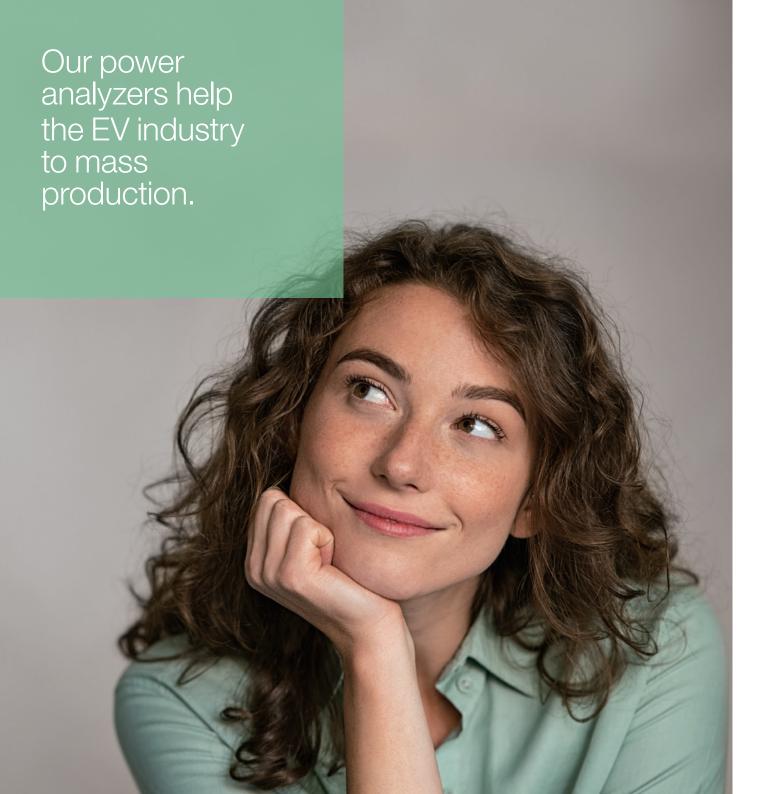
New electric power sources such as fuel cells and high-density batteries make new demands on test and measurement equipment. Yokogawa is meeting these needs by developing next generation measurement solutions, such as connecting our WT5000 Precision Power Analyzer and DL950 ScopeCorder.













### From development to production

With production of electric vehicles ramping up, manufacturers need to boost the efficiency of vehicle testing to ensure they can meet market demands. Yokogawa is further developing data acquisition solutions that allow in-vehicle measurements. With a wide range of power analyzers designed for development to mass production, we are helping the EV industry move from development to mass production.

# **COMMUNICATIONS**

### - anticipating measurement needs

There has never been more data available than there is today – collected from sensors and monitors, analyzed, and turned into knowledge in data centers and distributed via networks to PCs and smart devices, data is driving the need for more power. Yokogawa is making communications more sustainable through precise measurement of that energy use.

# **Enabling faster more efficient networks**

To avoid building more energy using infrastructure, network operators want to increase capacity by getting more bits down the same lines. As optical channels are squeezed ever closer, Yokogawa's high resolution Optical Spectrum Analyzers offer the industry's best wavelength separation performance, helping device manufacturers bring higher capacity products to market.



### **Electrical meets optical**

Modern communications networks combine optical transmission of data with electrical systems to convert, analyze and store it. Where the two meet is where Yokogawa's expertise makes a difference. Our Precision Power Analyzers and Optical Spectrum Analyzers help simplify development and evaluation work as the industry moves towards a reduced carbon footprint of the next generation of telecommunication networks.

### **Precision and efficiency**

Increasing communication capacity and cutting energy use are the twin pillars of modern communications networks. With solutions to analyze ultra-high speed optical signals at high precision and combine these with power measurement, Yokogawa offers developers the ability to fine tune their optical components.













# Improving research and development efficiency

Researchers, engineers, and scientists involved in product development spend considerable time to develop new technologies improving performance and functionality. Yokogawa is responding with solutions that multiply the effectiveness of our instruments, enhancing their connectivity and analysis functions, we make it easier than ever to get meaningful results from the measurements, supporting users to maximize their effectiveness.

# **WELL-BEING**

- enriching people's lives through measurement technology

Never before has technology touched so many peoples' lives in so many beneficial ways. To ensure we can continue to use technology to keep people safe and healthy, Yokogawa is pushing measurement technology into new industries to meet the needs of new applications.

### New industries, new challenges

Medical devices such as ventilators are vital for the maintenance of respiratory function in many patients. To support developers in the industry, Yokogawa is pioneering test solutions that combine pressure, electric and optical technologies, giving a complete overview of the performance of pressure generating equipment.





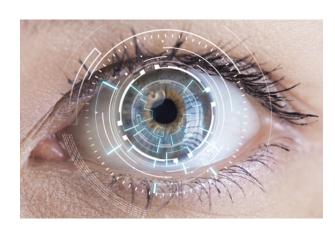


# Safe collaboration between man and machine

Robots are playing an increasing role in many aspects of our lives, from building cars to helping in hospitals and testing new vaccines. Robot developers want their machines to be safe, efficient and predictable. Yokogawa is producing measurement technologies that can simultaneously measure position, power and control signals, as well as data from sensors to ensure robots match up with expectations.



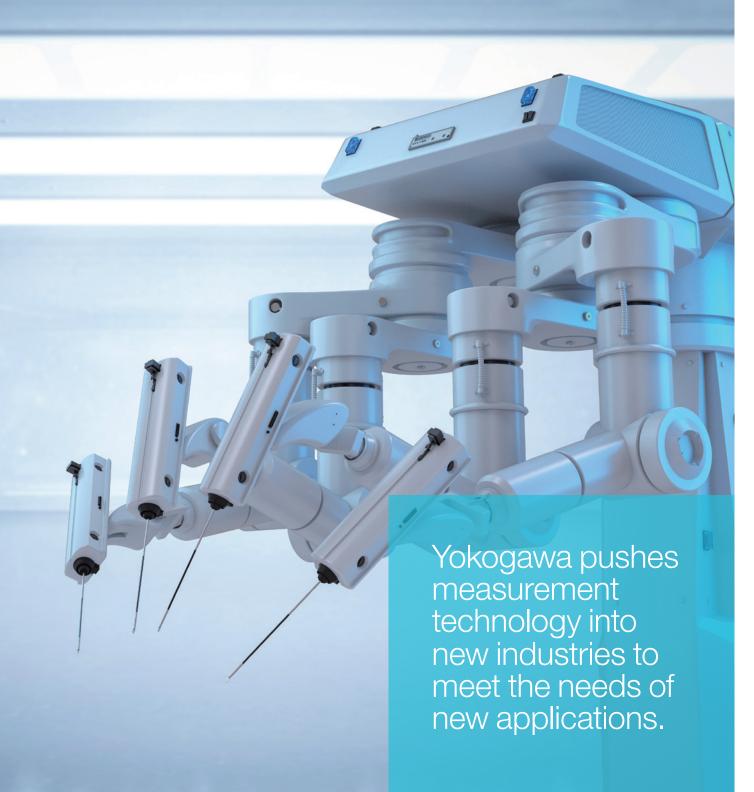
Both medical and industrial industries are seeing increasing use of infrared and laser measurement techniques. Yokogawa's expertise in characterizing optical spectrum and measuring optical power ensures developers can produce safe, compact devices that can be easily integrated into complete solutions.



# Ensuring the safety of new laser technology

Safety is paramount in all aspects of laser use. In particular, developers need to know that laser devices are eye safe, offer high reliability for in-vehicle sensors and can be evolved to be compact yet still offer the same performance. Yokogawa meets these needs with a range of Optical Spectrum Analyzers that cover a broad wavelength range and whose rotating grating technology offer superior performance and sensitivity.







### From research to production

Customers want measurement solutions to improve work efficiency, quality and safety, as well as save resources to address and solve a wide range of issues. Yokogawa supports our customers in every phase from research and development to production generating new measurement solutions and enriching the customer experience.

# **SERVICES**

- value creation through symbiotic innovation with customers

More than simply customers, the developers and manufacturers we work with are partners in innovation, inspiring us to create new solutions and services to meet industry challenges. There's a world of precision at your disposal.

### **Our Precision Makers**

Whether you have been working with Yokogawa products for some time, or you have just received a brandnew measuring instrument, we want to make sure you get the most out of it. Yokogawa's YES, (Yokogawa Expert Services) team is our center of knowledge and experience and is there for you.



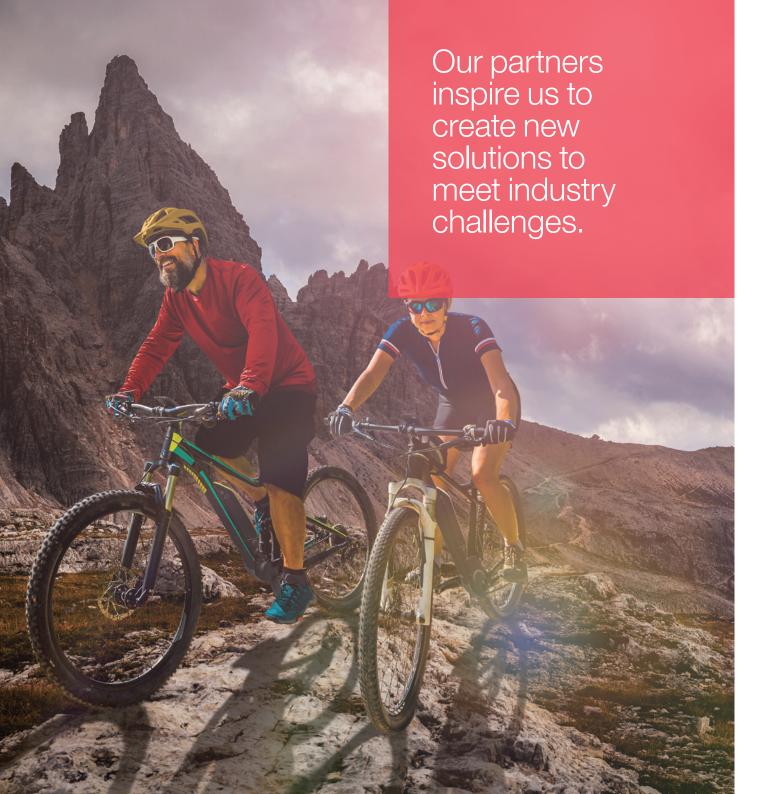
As companies seek to compete on a global stage, they require service wherever they have sites. To match their needs, Yokogawa's expanding global presence of repair and calibration services, ensure the customers' business operations.



# **Total Support for Measurement Lifecycle**

Companies are increasingly seeing lifecycle support as critical. At Yokogawa, we are developing new services, expanding our local support and developing knowledge transfer and training to ensure our specialists are always on top of new functionalities and understand how these add value to your application and contribute to improve productivity. We always strive to understand our customers' issues and how Yokogawa's products and services can contribute to solving them by providing the best possible service.







### Collaboration

Yokogawa strives to understand our customers' challenges and contribute to improving the efficiency of our customers' business processes at various levels. We will continue to evolve our measurement solutions to exceed our customers' expectations and support their technical development.

# **Precision Making**

