

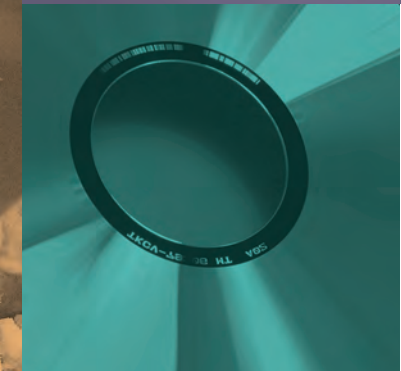
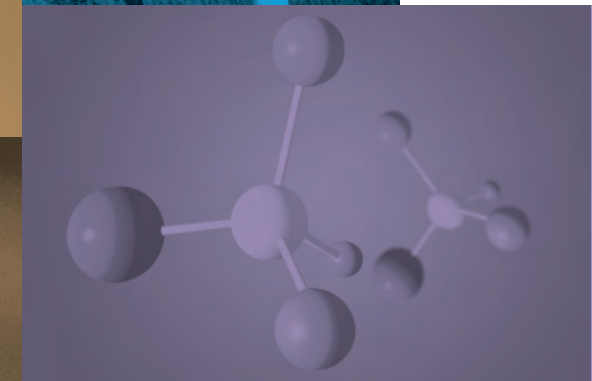
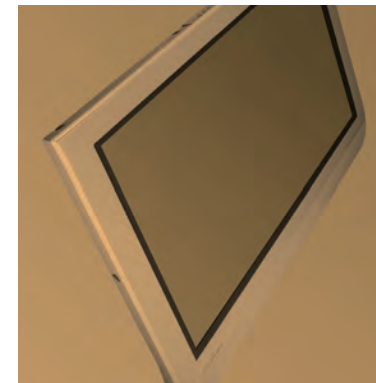


Corporate Profile

Driving the Future of Technology: Original Solutions in Measurement and Control

In 1959, NF Corporation was founded with the noble mission of providing the world with unique products using its high-precision negative feedback control technology, a technique not quite widespread in Japan at that time. This pioneering spirit is still alive today at NF, which has been proactively pursuing new fields and developing new products with the aim of contributing to the next-generation R&D and, through that, to advancing society. The proprietary technology of NF is used in a wide array of applications — from automobiles, digital appliances, and other high-tech electronic devices to fuel cells, solar power, and other clean energy technologies, as well as nanotechnology and even satellite, rocket, and other aerospace technologies.

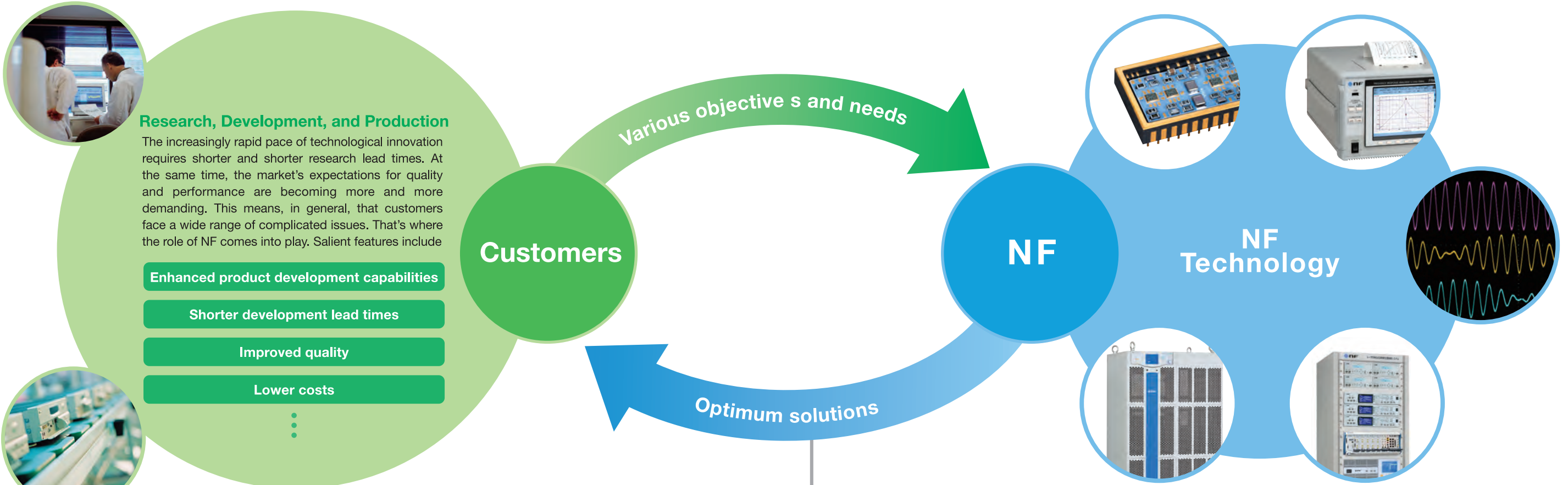
NF continues to develop new technologies to pave the way for a better future.



NF—Developing Proprietary, Ever-Evolving Measurement and Control Technologies

By using the technology of unmatched precision, NF provides optimal solutions in measurement and control.

Over the years, NF has produced numerous products in response to a variety of needs in the continually advancing electronics industry. These products have earned a reputation for being “unique and original”—a reputation that reflects our dedication to out-of-the-box thinking and to the development of unique technology. The NF products that culminate from this unique technology and extensive expertise are constantly evolving in response to our customers’ highly specific and ever-changing needs.



Solutions

Keeping a “big picture” perspective in mind, as an expert in measurement and control technologies, NF provides optimal solutions that go beyond a narrow problem-solving approach.

An Extensive Lineup of Products	A Wide Array of Applications	Know-How in High-Precision Measurement	Comprehensive, Customized Solutions
NF's broad product lineup allows customers to choose the optimum product for their needs.	With an extensive history of proven applications, NF can propose just the right choice to suit a customer's needs.	With its unmatched know-how in the field of measurement, NF can design the optimum solution for a customer's specific measurement needs.	NF has the requisite experience and flexibility to provide a comprehensive, customized solution from design to system startup when general-purpose products do not fulfill a customer's specific application needs.

From R&D to production lines, in a variety of fields, NF's high-performance products deliver advanced solutions.

NF's technology is adopted in a wide range of field.

NF product is adopted in wide markets such as Electronic Device, Industrial Instrument, Automotive, Social Infrastructure(Power & Energy, Transportation) and Aerospace.

► Grid



► Renewable Energy



► Automotive



► Device



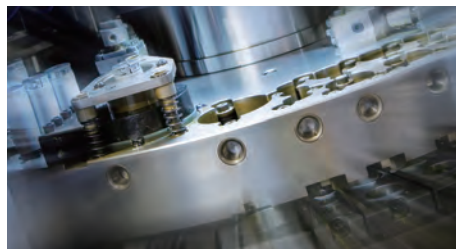
► Aerospace



► Transportation



► Industry



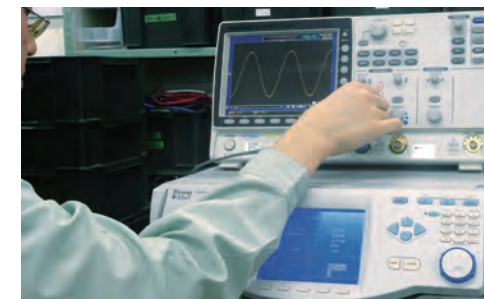
► Advanced Research



■ Research & Development



■ Quality Assurance



■ Production

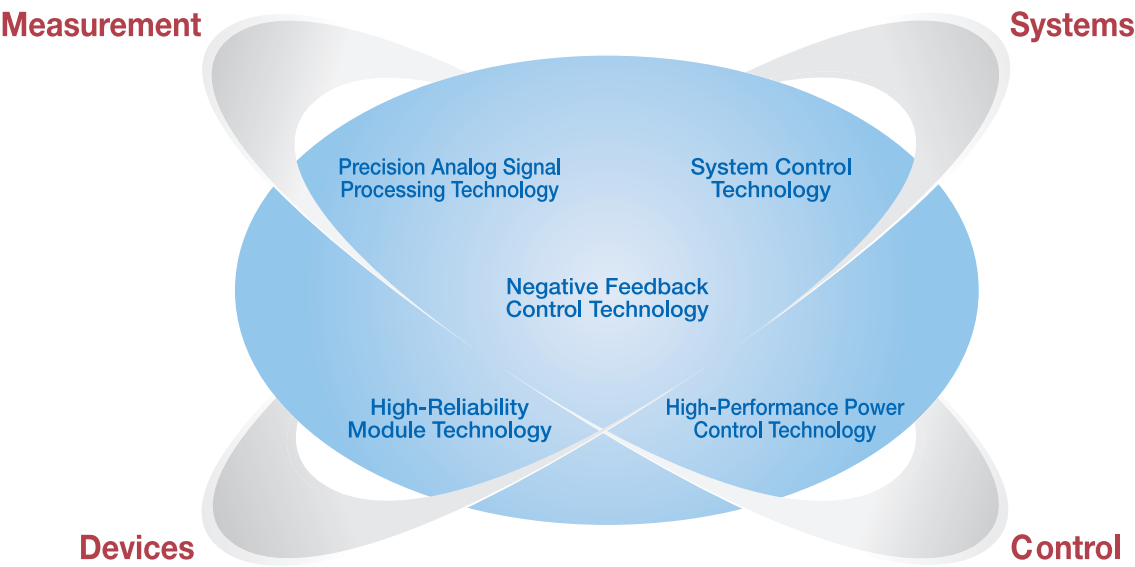


■ Maintenance



NF's Core Technology — High-Precision Measurement and Control

On the strength of its proprietary technology,
NF is expanding into a wide range of technological fields.



Negative Feedback Control Technology

Negative feedback (NF) control technology—the very genesis of the company's name—assures stability and high performance in electronic circuits and is widely utilized in circuits and control systems. Because improper control methodology can impair both the performance and stability of a device, NF strives for optimum control technology to maximize performance and stability. This core technology spans all of NF's application areas from small signal amplification to broadband power amplification.

Precision Analog Signal Processing Technology

In measurement, the accurate capturing and optimal processing of analog signals are critical. Minimizing noise, ambient impact, and other factors that impair measurement require technologies and expertise in precision signal processing, including amplification, filtering, and other circuit technologies. NF's precision analog signal processing technology is used in a variety of products for a wide array of applications, for conditioning everything from small, nanovolt-level signals to massive signals of thousands of volts.

High-Performance Power Control Technology

Power amplifiers and other power components used in R&D must have optimum control suited to the load characteristics. NF provides power control solutions assuring the same level of accuracy and precision as its measurement instruments. These solutions make use of analog and digital control technology, and regenerative technology (for utilizing power efficiently) and span a broad range of frequencies, from direct current to high-frequency power.

High-Reliability Module Technology

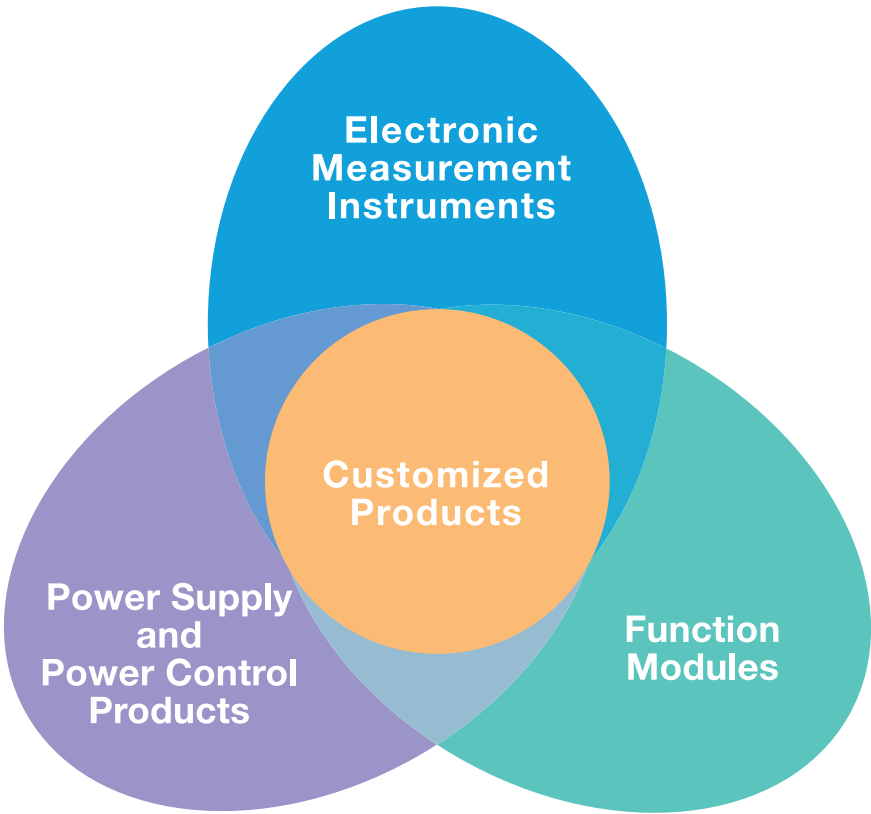
In addition to individual components, NF also provides complete devices that integrate all of the functionality required by a customer. NF's high-reliability module technology is based on technologies that are cultivated through the development of electronic measurement instruments and power supplies, as well as high-reliability mounting techniques designed to withstand the unforgiving environments of space flight. Using these technologies, NF meets our customers' specific demands by designing solutions that support all parts of the process from circuit design to mass production.

System Control Technology

Cutting-edge R&D often requires custom-built measurement instruments and systems with specifications that are usually not possible with general-purpose devices. NF's system control technologies facilitate the design of such devices and systems that meet our customers' needs and objectives. By organically integrating a broad range of proprietary technologies and by utilizing our unrivaled capabilities in customization and maintaining close, careful communication with our customers, NF creates a new value needed to achieve tomorrow's technologies.

Leveraging Our Core Technologies to Develop New Products

By fusing the expertise and proprietary technologies that have been cultivated over the years, NF makes products in four major categories. These market-leading, unique and customized products deliver the functionality and reliability necessary for cutting-edge technology development. With our lineup of unique products, NF can satisfy a variety of needs in a wide array of technical fields.



Core Technology of NF

Electronic Measurement Instruments

From R&D to production lines, in a variety of fields, NF's high-performance electronic measurement instruments deliver advanced measurement solutions.

Unique Products for Work That Challenges the State of the Art

Known as the backbone of modern industry, electronic measurement instruments are indispensable tools in state-of-the-art R&D and production. Since its founding, NF has delivered to market numerous "unique and original" products designed for breakthrough R&D. For instance, frequency response analyzers are used to measure the dynamic characteristics of the servo circuits used in CD and DVD systems and have enabled quantification of the characteristics of optical discs and their resistance to vibration. Many manufacturers have used NF's frequency response analyzers over the past 20 years, a period that saw the applications for optical discs spread and their quality specifications grow more demanding, as in portable and automobile-equipped devices. These high-precision devices have also facilitated R&D in many other fields such as fuel cells and switching power supplies.

Measuring Small Signals in Nanotechnology Applications

Designed to detect small signals buried in noise, lock-in amplifiers have contributed to scientific advancement in nanotechnology and other advanced fields of research. NF has also developed a preamplifier with the world's lowest noise rating: a voltage noise of 0.25 nV/Hz and a noise figure of 0.6 dB. This breakthrough device enables amplification of small signals that ordinarily would be drowned out by the noise of the amplifier itself. These products now play a central role in analog signal processing—the foundation of measurement—and have solidified NF's reputation as the leader in small-signal measurement.

A Lineup of Products Built in Response to Today's Needs

NF's lineup also includes function generators, which are used in many applications. In fact, in 1959 NF produced the first Japan-built function generator. NF also produces high-precision LCR meters which measure the parameters of electronic components and so support the very foundations of modern manufacturing, and acoustic emission measuring devices used in the development of new materials and in equipment diagnosis. NF continues to develop the advanced measurement solutions demanded by today's businesses in high-performance measurement instruments based on precision analog signal processing technology.



Function Generator



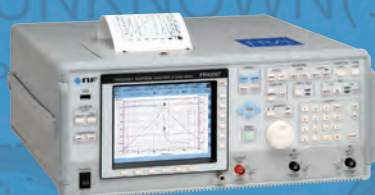
LCR Meter



Low-noise Preamplifiers



Lock-in Amplifier



Frequency Response Analyzer

Power Supply and Power Control Products

Power supply and power control products create the optimum environment for the testing and evaluation of today's advanced electronic devices and components.

Precise Power Control Across a Broad Range

Using our high-performance power control technology, NF has released numerous power source products since developing the first-ever made-in-Japan vacuum-tube AC power source. Covering a wide scope of power-control applications, NF's extensive lineup includes AC/DC power supplies, power amplifiers, and AC/DC electronic loads, all of which have made the name NF synonymous with power supplies.

From Supplying High-Quality Electric Power to Complex Testing

A fundamental product line since its founding, NF's AC power sources are designed and built to deliver high-quality, high-precision AC power and to provide excellent expandability of power and function. In recent years, NF has also helped to drive the advancement of electronics for power line environment testing such as the immunity testing of electronic components used in commercial power supplies.

NF's unique products include high-speed bipolar power amplifiers, which are used when testing magnetic materials, piezoelectric actuators, and electronic components.

In addition to products that supply electric power, NF also makes electronic loads, which are available in AC, DC, power-regenerative, and other variations and used in such applications as the performance testing of power-supply circuits.

Supporting the Electric Power and Energy Industries

Utilizing sophisticated power control technologies, NF has also made numerous products for the electric power and energy industries. For instance, NF's protective relay testers are multifunctional, high-precision devices, which are used to test protective relays in electric power systems in applications ranging from R&D to maintenance.

NF's large-capacity AC power sources also account for the overwhelmingly largest share of the market for the devices that are used to test grid connections in solar power generation, fuel cell co-generation, and other distributed power generation systems, which are attracting increased attention of late.



AC Power Source



AC/DC Power Source



High Speed Bipolar Power Amplifier



High Speed Bipolar Power Amplifier



Bipolar DC Power Supply

Function Modules

By using high-reliability technology, NF supports everything from circuit design to modularization. Function modules facilitate design efficiency.

Devices That Integrate NF's Unique Technology

Fusing high-precision circuit technology and high-reliability module technology developed through years of experience with measurement instruments, NF's function modules provide comprehensive solutions covering everything from design to manufacture. These devices can be flexibly suited to any customer's needs.

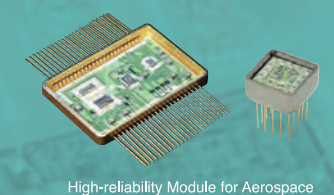
NF offers an extensive lineup of preprocessing filters and low-noise amplifiers used in device integration and experimentation, which save time and labor in the development process. In addition, NF's phase detectors, I/V amplifiers, and other devices are widely used in the production of semiconductors and other precision electronic devices.

In addition to a broad lineup of standard products, NF has produced an extensive series of custom devices that support R&D in aerospace, medicine, railroad, semiconductors, electric power, and other high-tech fields.

High-reliability mounting technology was used for the Japan National Space Development Agency's H-IIA rocket because of its ability to withstand the severe conditions of space, including temperature change, vibration, and impact. Other examples of NF technology expanding into advanced fields include an application of NF's technologies in high-voltage amplifiers and high-reliability modules. Piezoelectric transformer technology was utilized to develop a high-voltage bias power supply for use in strong magnetic or radiative environments.

Comprehensive Support Starting in the Design Stage

On the strength of high-reliability module technology, NF's function modules support the entire development process, from circuit design to modularization and mass production. These devices are manufactured under strict quality control conditions at a dedicated clean plant so that the design and production—including small-lot and substrate mounting—meet customers' various needs and specifications.



High-reliability Module for Aerospace



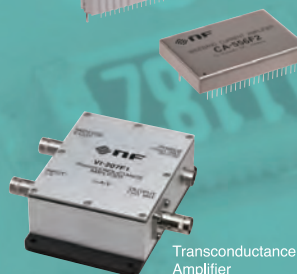
Filter



High-reliability Filter



Wideband Current Amplifier



Transconductance Amplifier



Phase Detector



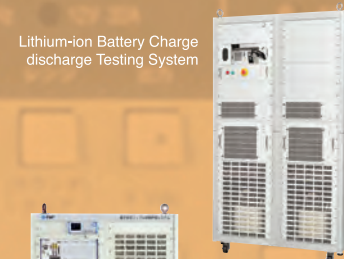
Oscillator



Piezo Driver



EMC Testing System



Lithium-ion Battery Charge discharge Testing System



Ripple Current Testing System for Capacitors



Fuel cell Testing System



Bipolar Power Amplifier

Customized Products

Using our extensive technology and know-how, NF produces customized products designed to meet a wide array of needs in cutting-edge R&D.

Drawing on Our Vast Technological Resources to Build Customized Products

NF has built numerous customized products by drawing on our vast technological base in electronic measurement instruments, power supplies, and function modules, and by maintaining close communication with our customers. By meeting sophisticated needs in cutting-edge R&D, these customized products create new value for our customers.

Supporting Cutting-Edge R&D in Fuel Cells, Displays, Aerospace, and Automobiles

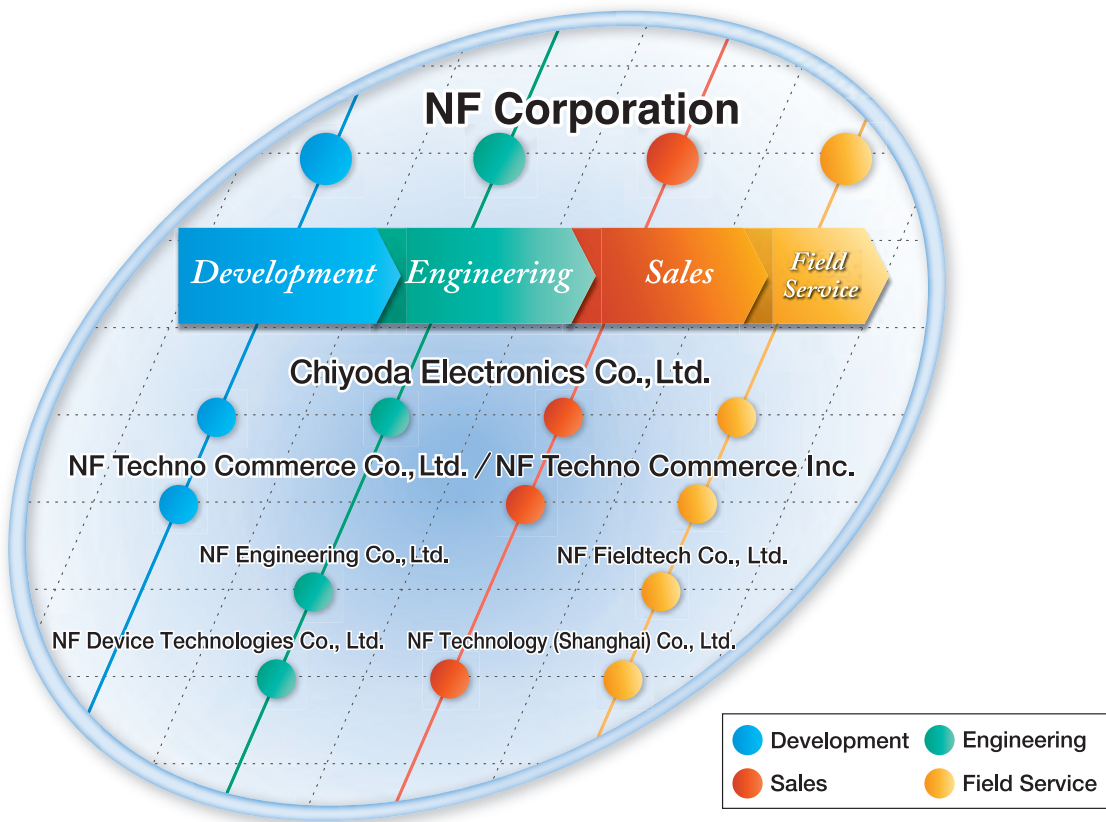
Fuel cells are looked upon as having great potential as a next-generation energy source. But before fuel cells can be commercialized, improvements must be made in cost effectiveness, performance, durability, and other properties. Also required is the technology to analyze the degradation processes that occur within the fuel cells. NF's fuel cell testing systems, along with its expertise in analog control, power control, and system control, help customers develop solutions for fuel cell commercialization. In addition, the grid connection testing systems can even be used with distributed power generation systems utilizing fuel cells, solar cells, gasoline engines, and other sources. The culmination of NF's unparalleled experience in AC power sources is that these products are also compatible with large-capacity power-generation systems.

NF will continue to develop unique products as solutions for customers who need tomorrow's technology today.

From Product Development to User Support — The NF Group Delivers High Quality

Satisfying our customers' needs is the philosophy driving NF's product development.

With a fundamental belief that our customers' satisfaction and trust are the essence of our product development, NF pursues quality in every aspect of our operations with a comprehensive system that tightly integrates everything from product development to user support.



We are ISO 9001 and ISO 14001 certified and actively promote quality control and environmental responsibility.

ISO 9001

NF has established the quality management system for the product in response to the customer needs. Our quality management system is certified by the international standard ISO 9001.

The scope of registration:

- Design, development, manufacturing and additional service operation of electronic measurement instruments, including repair, inspection and calibration, with regard to signal generators, indicating meters, ultra-small-signal measurement devices, filter/measurement systems, frequency response analyzers, data acquisition system, acoustic emission measurement unit, AC power sources and power test instruments
- Design development and manufacturing of function modules, with regards to filter, amplifier, signal generator, phase detector, signal processor, power supply and hybrid IC.

ISO 14001

NF has established the environmental management system, which is certified under the international standard ISO 14001.

NF Group

NF Corporation



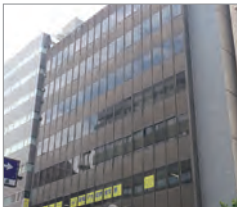
Developing high-quality products based on proprietary technology and extensive know-how



NF Techno Commerce Co., Ltd.



We are engaged in overseas sales of NF products and import-export operations. We are also engaged in system integration proposals and solutions that incorporate technology and excellent products at home and abroad.



NF Techno Commerce Inc. USA



We offers dedicated sales and support to all of its customers in the United States.

<http://www.nf-techno.com/>



NF Engineering Co., Ltd.



Using proprietary production technology and rigid quality control to efficiently manufacture standard and customized products.



NF Fieldtec Inc. China



Providing calibration, maintenance, and repair services performed by experienced technicians found only at a manufacturer to assure long years of trouble-free use.



NF Device Technologies Co., Ltd.



Using state-of-the-art mounting techniques and clean-room environments to produce high-reliability, high-precision function modules.



NF Technology(Shanghai)Co., Ltd.



We provide comprehensive after-sales service and technical support to enable our customers in China to use our products with confidence.



Chiyoda Electronics Co.,Ltd.



Based on unique power conversion & control technology, We are providing DC power supply for the surface treatment appliance and general purposes. Also we have so much experience of custom-made products & system integration.



User support site

Visit this Web site for product information, support, and useful information about measurement.

<http://www.nfcorp.co.jp/english/>

