# Helping pioneers in technology accelerate progress













1971

nocket

calculator

First







1983

First





transatlantic

fiberoptic cable

enters service



First computer

1953

1960 Laser invented 1961

1984

service

First cellular

telephone in

179 million

1999

Transistor

Watson and Crick determine double helical structure

Regular color TV programming

First man in space

1967 First heart transplant

First manned landing on 1973 Internet is set up by the U.S.

of Defense

1975 First personal

First portable compact personal cassette player

1979

disc

Internet hosts artificial intelligence exceeds one beats world-class chess champion Garry Kasparov

1992

Number of

neonle use the Internet worldwide

reams made rea

1980

**'85 '86 '87** 

1997

A computer sporting





### 1939: Audio oscillator

HP's first product. The audio oscillator is based on the principle of negative feedback.

# 1943: Signal generator

HP produces the first full line of signal generators between the audio and microwave frequency ranges

### 1951: Frequency counter

The accurate and easy-to-use frequency counter revolutionizes the measurement of frequency.

# 1960: Sampling

The first sampling oscilloscope could look at digital waveforms in computer

technology.

# 1964: Atomic clock

This clock is used to synchronize international time standards.

### 1973: Logic analyzer

The logic analyzer has become the tool of choice for engineers in the field of digital electronics.

### 1970: Microwave network analyzer

The fully automated microwave network analyzer becomes indispensable for the design and manufacture of microwave systems.

low-level measurements of power of the multifunction instruments used to evaluate cellular telephones and base stations.

### 1985: First microprocessor-based network analyzer

This device allows This receiver provides accurate measurements in and modulation, and is a forerunner near-real time across. unheard-of frequency ranges.

1983: 8902A

Measuring

Receiver

### 1986: 8753A Vector Network Analyzer

This analyzer brings affordable vector analysis to the RF masses for the first time.

**1987: 5371A Frequency and** 

HP introduces a new measurement

that would revolutionize the analysis

of modulation and oscillators-

changes in frequency as a function

Time-Interval Analyzer

1997: Advanced Design

System (ADS) Software

### 2000: PSA series of spectrum analyzers

EDA software which provides Agilent introduces analyzers the industry's leading high-frewith dramatic improvements quency simulation technology in dynamic range, measureto communication product ment speed, and accuracy design. This software suite using a new LO, an IF intebrings a new level of power grated circuit, and powerful and sophistication to DSP to implement 160 digital microwave simulation. resolution bandwidth filters.

### 1998: Oscilloscope

HP introduces an oscilloscope with a graphical user interface and built-in information system. In 1999, optional English-language voice control is added, allowing hands-free operation for enhanced usability.

# 2001: Microwave high-performance

signal generator

Agilent introduces a signal generator that helps ensure accurate receiver characteri zation and eliminates the need for external amplifiers when testing high-power devices.

### In 1939, two young engineers named Bill **Hewlett and Dave Packard started a new** company called Hewlett Packard (HP). The product they introduced solved a customer's problem through a significant technical breakthrough.

The model 200A audio oscillator provided superior performance over any competing device, and did so at a much lower price. Enthusiastic acceptance of this product led to the rapid development of a full line of audio frequency measuring instruments, firmly establishing the new company in the field of test and measurement.

### From the beginning, Bill and Dave used the best technology to solve customer problems, and supported their products with first-class service and complete integrity. These traditions continue today, more than sixty years later.

### **Solving Problems with** State-of-the-Art Instrumentation

As the company grew, HP followed the strategy of developing state-of-the-art instrumentation that has allowed engineers and scientists to understand and solve a broad spectrum of problems.

# **HP Enables Emerging Technologies**

The ability to measure electronic and physical parameters, accurately and inexpensively, has helped engineers and designers to develop many consumer and industrial products that influence the daily lives of people everywhere. In addition, HP equipment has enabled advances in basic science. Today most laboratories and factories have HP instrumentation. As a result, HP has an important and longstanding role in the advance of science and technology.

## HP Expands into New Fields with **Agilent Technologies**

As Bill Hewlett pointed out in his book, *Inventions* of Opportunity, "the company's values are based on matching technology with market needs." Agilent Technologies is the new identity for the company Dave and Bill formed in 1939. Continuing in the HP tradition, Agilent Technologies offers more than a thousand products in fields that include Electronic Test and Measurement, Chemical Analysis, Communications, Components, and Automated Test. In each of these fields we are

committed to the objective Bill and Dave set for their first audio oscillator: To contribute to our customers' success.

# Agilent Technologies Upholds HP Traditions of Quality, Service and Integrity

In The HP Way—How Bill Hewlett and I Built Our Company, Dave Packard discusses several product innovations that were major advancements in state-of-the-art technology. He explains that the products represent "the pace at which technology evolved and advanced in the last

Hewlett-Packard was able to react to new technological opportunities." Agilent Technologies continues this tradition of technological advancement and commitment to customers.

fifty-four years and the agility with which

Ned Barnholt, Chief Executive Officer of Agilent Technologies, promises, "We will continue to use the best technology to build great products that solve real problems, and back them up with worldclass service and uncompromising integrity."

ons Industry Association (PCIA

### **Helpful Web References**

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Agilent Technologies