

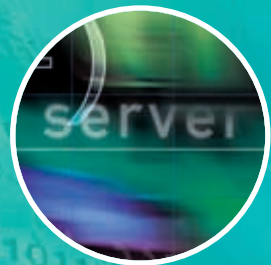


**Test innovations
that improve your bottom line**

Communications Network Solutions



Agilent Technologies



**Complete
test solutions
for switches
and routers**

**Groundbreaking
technology
to catch
the 40G wave**

**Solutions
for
Metro**

**Insight
like never
before**

**Flexible
scalable
solutions**

**Do you dream
of accelerating your
time to market?**

**Do you dream
of reducing your
cost of test?**



Agilent Technologies.

A strategic business partner for success.



In optical communications, Agilent's purpose remains resolute and very simple: to develop cutting-edge test solutions that help drive the intelligent all-optical network. Solutions to bring your products to market faster than your competitors. And at lower cost.

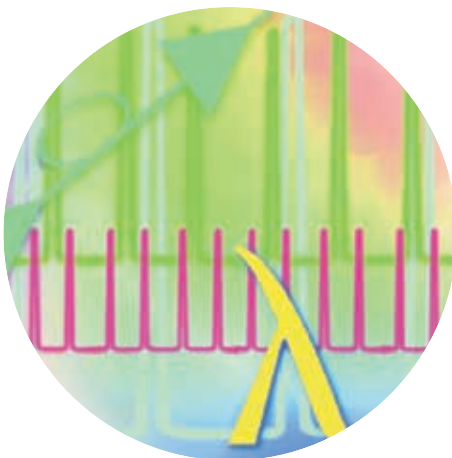
The rapidly changing environment of the communications industry brings new challenges to your business. Your customers now base their decisions as much on economic factors as technological advances. They demand both low cost and reliability, two attributes previously considered mutually exclusive. And they expect solutions to integrate easily into legacy systems and reduce the cost per managed bit.

Agilent Technologies understands your business landscape. That's why we are at the forefront of developing optical test and measurement products to boost productivity and slash the cost-of-test. Through our unique perspective in understanding the entire communications value chain, we can help you deliver products quickly and efficiently, at lower cost, and complying with industry standards. For test applications at rates of 10 Gb/s to 40 Gb/s and beyond, for Gigabit Ethernet, dense wavelength division multiplexing (DWDM), and the metro-edge environment, Agilent has an expanding range of cutting-edge test equipment that will speed up your time-to-market, time-to-volume, and time-to-profit. In short, our test innovations improve your bottom line.

No other test equipment supplier provides the depth and breath of knowledge and practical experience that Agilent does. I invite you to examine our solution portfolio and explore the possibilities.

W. Huettemann

Werner Huettemann
VP and General Manager
Communications Network Solutions



Driving the optical component frontier

For experienced engineers who demand the highest possible performance, Agilent's optical component test products are often nothing less than essential. Offering high precision and fast measurements, scalability and ease-of-use, our passive and active component test solutions are geared to help you reduce time-to-market and cost-of-test. In other words, with Agilent on your side, you'll have the competitive edge to get ahead. And stay ahead.

Testing passive and active optical components



“Agilent Technologies continually strives to offer high-performance test solutions that bring innovative products to market faster.”

Advances in fiber optic technology naturally reflect back on the optical component test solutions that help deliver them. Agilent's active and passive component test solutions, for research and development through to manufacturing applications, optimize resources, keep cost-of-test low, and your competitive edge high.

For passive components, Agilent's extensive portfolio of high-performance stimulus-and-response test solutions ensures fast and accurate test of complex, high-channel count devices. Our latest lightwave measurement system, lightwave multichannel system, and lightwave multimeter offer outstanding tunable and fixed laser sources, fast power meters, return loss

modules and easy-to-use attenuators and switches. As building blocks for a fast, accurate and reliable test solution, you can create an effective test system according to your unique business priorities.

Agilent's first-to-market 81910A photonic all-parameter analyzer and optical dispersion analyzer mark a significant step forward in 10 Gb/s and 40 Gb/s test systems. Designed to test components, amplifiers and systems, these solutions offer reduced test time and increased throughput thanks to a single device connection for determining spectral loss, polarization dependent loss, group delay, and differential group delay.



“If you’re investing in producing advanced components and devices, make Agilent the foundation of your test investment.”



The OmniBER XM network simulator simultaneously generates real-life network signals using mixed payloads with errors and alarms on up to 192 channels in a single port. This replicates real-world network conditions enabling true stress testing of network elements and increases the effectiveness of verification test. The OmniBER XM simultaneously measures each channel for relevant errors, alarms, and bit error ratio, and also includes intrusive thru-mode capabilities.

When it comes to testing active components, Agilent has a wide range of high-performance solutions for rapid and precise characterization of devices such as optical amplifiers, line cards, transponders, receivers, transmitters, lasers, modulators, and photodiodes.

For both research/development and manufacturing applications, Agilent offers a family of multi-wavelength meters plus a range of optical spectrum analyzers that enable characterization of next-generation DWDM systems and components. A variety of performance options allow you to choose the most cost-effective solution to meet even the most stringent test needs.

The future of optical networking starts here

The next few years are going to be both a challenge and an opportunity for high-speed optical network industry. No one has more experience in high-speed digital transmission test, and no one is better positioned to support you as technologies and markets evolve. Let Agilent help you get to the future faster, and at lower cost.

Whereas computers get marginally faster every year, the communications environment experiences leaps far beyond small, incremental steps. 40 Gb/s is the next breakthrough line rate and is expected to reduce the cost-per-transmitted bit by 2.5 times as compared to combining four 10 Gb/s signals.

As you would expect, Agilent has a range of transmission test products that operate at all standard line rates

of today, and those of tomorrow. Whether you are testing optical edge devices (line cards, sub-assemblies or opto-electronic components), Agilent has solutions that help you bring new products to market faster, ramp up quicker, and reduce the cost of test per device. They also ensure your products comply with the latest Telcordia, ITU-T, and OIF standards.

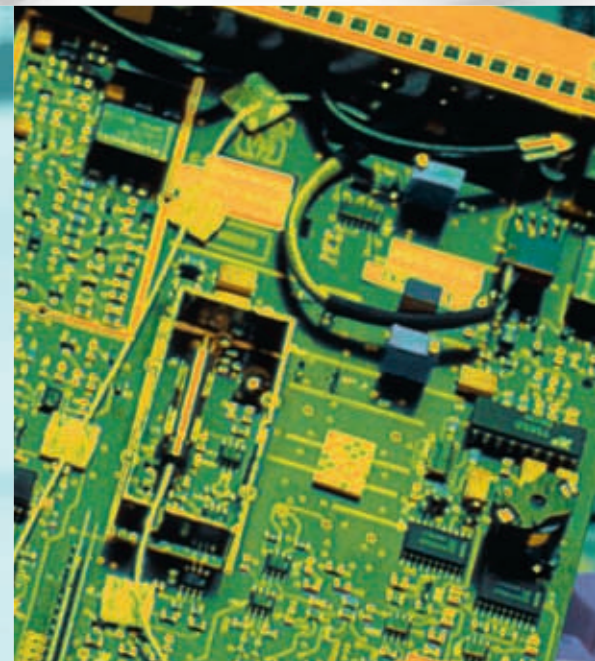
For pioneering 40 Gb/s components and systems, there is Agilent's first-to-

market 43G electrical/optical bit error ratio (BER) test system. This scaleable 40 Gb/s test solution is specifically designed to assist semiconductor, component and equipment manufacturers verify electrical and/or optical components, line cards and complete systems for OC-768 digital transmission lines. It's based on the Agilent ParBERT and is also the first fully integrated BER solution that tests optical data streams up to 43 Gb/s over C- and L-bands.

Testing optical and electrical components



"Agilent Technologies offers a broad spectrum of high-productivity opto-electronic test solutions."





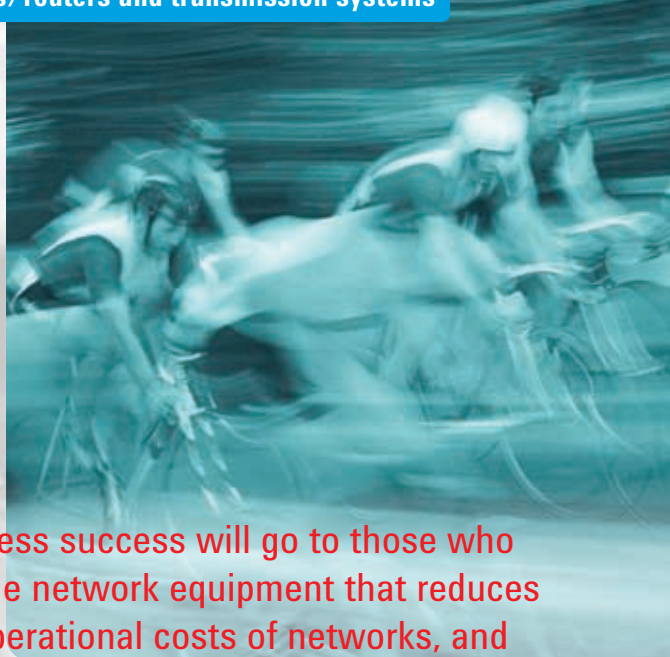
Agilent's family of OmniBER analyzers provides comprehensive test capability, including the industry's lowest jitter intrinsics, and a full set of interfaces up to 2.5 Gb/s. For SONET/SDH/T-carrier/PDH functional test requirements, plus jitter, Packet over SONET/SDH, and ATM applications, these easy-to-use analyzers maximize your efficiency.

"If you want R&D and manufacturing efficiency, let Agilent show you a better way to reduce time-to-market and cost-of-test."

Breaking the bandwidth bottleneck

Ultimately, the dream is an optical networking infrastructure that delivers high-speed, high-bandwidth access for IP data, voice, and video applications and unprecedented services to consumers, businesses, and public institutions. Agilent's test solutions respond to your test challenges to deliver robust IP routers, switches and transmission equipment, as well as reliable, next-generation network services. To help make that dream a reality.

Testing switches/routers and transmission systems



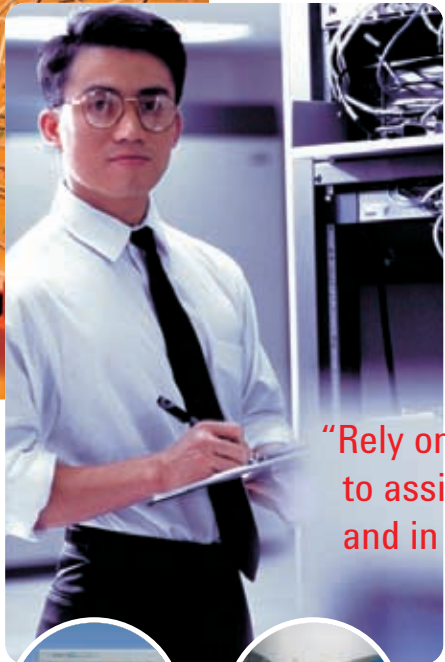
"Business success will go to those who provide network equipment that reduces the operational costs of networks, and improves the service at cost-effective prices to the end-user."

With the continuing rapid growth of Internet Protocol (IP) traffic, the power of optics is being combined with current and emerging network technologies and protocols, including gigabit and 10 Gigabit Ethernet, IPv6, MPLS, GMPLS, IP and MPLS-VPN's, IP Multicast and VLAN. While the goal is to transform core and metropolitan area networks into a fast and reliable transport system, network equipment using these technologies require cutting-edge test solutions to prove they can deliver on their promise and interoperate.

Agilent offers a range of powerful and versatile test solutions to accelerate the development and deployment of these network technologies. Our

integrated family of IP test solutions spans the entire design/test cycle from pre-integration design through to post-integration testing of electrical and optical switches and routers, cross-connects, bandwidth managers, DWDM systems, digital multiplexers/demultiplexers, and metro/edge provisioning platforms. These IP test solutions ensure that network equipment operates reliably, at expected performance levels, and that equipment developed by different manufacturers interoperates successfully under realistic network conditions.

For example, Agilent's RouterTester is an unparalleled "Internet-scale" test solution for wire-speed, multi-port traffic generation and performance



**“Rely on Agilent Technologies
to assist your business, today
and in the future.”**



analysis of your network devices. It covers the full spectrum of test needs, from simple traffic blasting, through comprehensive protocol emulation and conformance testing, to integrated control and data plane testing.

Agilent's multi-port transmission tester provides Layer 1 SONET/SDH testing at all standard line rates up to 10 Gb/s, plus Gigabit Ethernet. This cost-effective solution, specifically designed for production test, also provides error analysis on core and edge networking equipment.

And for fast product development of devices and modules for SONET/SDH and optical transport network (to ITU-T G.709) network equipment, the OmniBER OTN delivers a range of innovative measurement techniques and ease-of-use features. Equipped with all line rates from 1.5 Mb/s to 10 Gb/s, plus 10.71 Gb/s optical channel (OTU2), including high accuracy jitter testing to 10.71 Gb/s, and it can also identify mapping defects and ensure vendor interoperability when encapsulating Ethernet payloads into SONET/SDH up to 2.5 Gb/s. The OmniBER OTN is designed to help you bring products to market fast without sacrificing quality.

Network Dreams Made Real



**Passive and active
optical components**



**Optical and electrical
sub-assemblies and modules**



**Transmission equipment,
switches and routers**

Parametric/Functional/ Protocol Layer Test



Optical/Electrical BER Test System



Infiniium DCA



RouterTester



BitAlyzer



ParBERT



BSTS



QA Robot



OmniBER/OmniBER OTN/XM



71612C Error Performance Analyzer

Optical Layer Test



OmniBER XM



81910A Photonic All-parameter Analyzer



Optical Power Meters



RouterTester



Lightwave Measurement System



Tunable and Fixed Lasers



OSA/High Resolution Spectrometer



Optical Dispersion Analyzer



Optical Switch Test Solution



Multi-Wavelength Meter

**Optical Components
Design and
Manufacturing**

**Network Equipment
Design and
Manufacturing**

Keeping you at the cutting edge

Supplement your core competencies with Agilent services, support, education and consulting

Our commitment to your success doesn't simply stop when your test solution arrives on-site. Agilent provides global service and support teams of highly trained engineers offering tailored consulting and education services, test system integration, installation, training, and around-the-clock, seven-day support with local service centers. Additionally, we provide product, application and technology training either in a classroom environment or on-site.

By choosing Agilent as your support partner, you get unparalleled access to technical incite, capability and experience. We'll help you get the best return on your test and measurement resources, and get the best out of your test and measurement products. We'll help keep your test systems competitive and cost-effective for years to come. And we'll help you make the selection and purchasing of your test equipment as efficient as possible.

Whether you're developing today's or tomorrow's products and technologies, Agilent offers you the right test and measurement solutions and application knowledge to get ahead and stay there. Agilent's communications experts have accumulated a great deal of valuable applications knowledge and training material that can assist you bring your product to market even quicker and more cost-effectively than before. For more information, contact the communication specialists at you nearest Agilent sales office.

► www.agilent.com/comms/lightwave



Agilent Technologies continually strives to offer high quality service and support services that enhance your business. However, don't just take our word for it, let us prove it.



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Pub #5988-4183EN US, from your local Agilent sales office.



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