Agilent 8960 R&D test solutions speed mobile device development

The only test set with both RF and high data rate test performance for real-world mobile device test - across the lifecycle
Data-intensive mobile devices require new test capabilities

Designing and testing today’s high data rate mobile device is significantly more complex than designing handsets for cellular voice transmission alone. New mobile handsets must maintain quality of service for voice while seamlessly processing high speed data applications. Mobile devices are also converging with applications such as WLAN, location based services and other technologies that require testing to ensure performance without service degradation. Being first to market with complex, feature-rich mobiles that perform as expected in real networks is the designer’s goal. The 8960 has an extensive portfolio of test solutions to help designers reach this goal.

More of the world’s cellular phones are manufactured with the Agilent 8960 than any other one box tester...

– what are you designing with?
Built around the high performance E5515C hardware platform with embedded software applications, the 8960 provides bench top cellular network emulation for testing all of today’s and tomorrow’s 2G, 3G and 3.5G mobile devices on a single platform.

Providing the industry’s most accurate, repeatable and standards-compliant RF measurements, the 8960 brings RF pre-conformance measurement capability to engineers early in the design cycle, ensuring maximum design integrity. It offers industry-leading data throughput test with data analysis tools for thorough evaluation of new data-intensive features.

As an industry-standard platform, the 8960 has many test solutions to simplify mobile device testing. The extensive portfolio includes bench-top test, full turn-key racked test systems, and a long list of test solutions designed by Agilent -- with additional solutions designed with industry partners.

Using one test set across the design cycle speeds design work by providing:

- Faster and simpler debug and fix cycles
- Easier problem replication across engineering groups
- Higher asset utilization
- Reduced support requirements

The 8960 is the only one box tester used across the entire cellular design, integration, validation, conformance, and manufacturing lifecycle. Using one test set across the lifecycle speeds design, making it easier to create high quality devices while meeting market windows. Consistency of test across the entire lifecycle provides faster and simpler debug and fix cycles, easier problem replication between development groups and improved development efficiencies. Using one test set for RF and data test across the cellular device lifecycle allows higher asset utilization and reduced support requirements.

### 8960 test solutions for every stage of design

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* Contact your Agilent Representative for details on test systems created with industry partners using the 8960 platform.
Standards-compliant RF measurements for design through conformance

Bring the RF measurement performance found in certified RF conformance test systems to the design bench!

8960 test applications and lab applications run on the 8960 providing RF measurements and flexible call processing to fully test RF performance under realistic user scenarios – all the way from design phase through integration, validation and conformance. Design and test with confidence; the 8960’s RF measurements are used worldwide to manufacture more cell phones and mobile devices than any other one box tester.

Automated RF testing

Automate 8960 RF measurements to provide turn-key standards testing with Wireless Test Manager (WTM) software. WTM software takes the guess-work out of “decoding” the cellular standards with fully optimized, standards-based tests to speed pre-conformance and RF regression testing. This software gives you the ability to set up and run RF tests quickly, and to modify test conditions and limits for customized testing.

### Wireless Test Manager (WTM) - RF test automation

- E6567 cdma2000/IS-95/AMPS/1xEV-DO
- E6568 W-CDMA/GSM/GPRS/EGPRS
- N5880 Enhanced cdma2000/IS-95/AMPS
- N5882 Enhanced W-CDMA
- N5884 Enhanced 1xEV-DO

Refer to page 10 of this brochure for information on fully racked and configured RF design verification and RF conformance test systems.

Wireless Test Manager (WTM)

Turn-key RF measurements testing
- Run pre-defined test plans with a single mouse click
- Loop test steps to test channel power, etc.
- Change or modify test plans and test steps in seconds
- Customize test steps and test parameters using “Wizards” to reduce coding time
- Simplify test with easy to operate MS Windows® user interface with intuitive results display
- Log results for comparison and post-processing
- Control 8960, Agilent Performance Signal Analyzer (PSA), bar code reader, fixture, and other GPIB devices
- Automate battery current drain testing in combination with Agilent’s 14565 device characterization software

![Figure 1. Typical 8960/test application (TA) software screens showing RF measurement results.](image)
Today’s mobile devices require test equipment with combined RF and high-rate data test capabilities for “real-world” testing.

Use 8960 lab application software for the most complete set of network emulation, RF measurement and data test features to fully exercise data-intensive mobile devices. Emulate changing channel conditions while evaluating applications for end-to-end IP data performance under simulated real-world conditions. Further simplify data test by adding Agilent’s Interactive Functional Test (IFT) software.

High-rate data throughput testing

Test mobile device packet data performance, including its ability to send and receive the highest data rates in today’s modern systems. Only the 8960 can sustain the full IP data rates of the latest technologies, from a designer’s bench top!

Data throughput monitoring provides both numerical and graphical measurements for data rates (current, peak, and average) as well as the accumulations of IP packets and bytes between the 8960 test set and mobile device.

Create complete, end-to-end packet data service testing by connecting the 8960’s local area network (LAN) port to a computer network. Test FTP, UDP, streaming video, SMS/MMS, VoIP, mobile IP and more.

Battery current drain testing

Make current drain measurements synchronized to the activities of your device under test. Validate mobile device current drain for all of its RF transmit power levels and channels, or while it performs simultaneous activities such as FTPing files and sending multiple SMS messages. Performing these tasks manually is time consuming and laborious. The 8960 can easily run simultaneous user activities while adding impairments and call processing events to evaluate battery current drain – helping you design for maximum battery life under realistic customer usage scenarios.
Test Fixed-Mobile Convergence (FMC)
UMA/GAN, Vo-Wi-Fi

The 8960 UMA/GAN test solution provides cellular radio and core network functionality needed to evaluate UMA/GAN mobile phones. The access point is a standard WLAN hub with a test setup that establishes the key network elements and intelligence to hand over between cellular and low mobility formats. The 8960 provides testing for GSM/(E)GPRS and W-CDMA voice, data, and SMS—covering 100% of the 51.010 standards tests for pre-conformance evaluation.

For automated testing, R&D engineers can now streamline FMC handset and converged device testing with the Azimuth System’s FMC test suite software developed around the Agilent 8960 wireless communications test set. This automated solution emulates real-world user experiences, evaluating converged device performance under more realistic end user conditions.

The Azimuth/ 8960 FMC converged handset test solution provides conformance test coverage for UMA/GAN as well as:

- Wi-Fi quality and performance
- GSM functional test and conformance
- Hand over reliability between the GAN and GSM networks
- Real-world impairments/interferences such as Wi-Fi, Bluetooth™, RF, microwave and network congestion
- PESQ voice quality measurements

Location based services test
A-GPS/E-OTD

Test position location capability and ensure Assisted Global Positioning Services (A-GPS) and Enhanced Observable Time Differences (E-OTD) activities do not interfere with your cellular device’s voice and data connections using 8960-based test solutions.

For A-GPS test, the 8960 supports sending assistance data through control plane RRLP, RRC, or TIA-801 messaging. The E5965A Location Server Emulator can be added to support A-GPS testing with the assistance being sent through the user plane. When combined with the E4438C ESG Vector Signal Generator, A-GPS functional test can be performed. Agilent’s GS-9000 Lite test system provides a suite of standards-based tests for A-GPS design verification on the bench-top. The GS-9000 Standard test system adds additional test cases for pre-conformance test. The 8960 can also be integrated with an ESG and an antenna chamber to perform CTIA-specified Over the Air A-GPS receiver performance testing.

Test E-OTD services with MS-based or MS-assisted E-OTD using 8960-based test solutions, performing the main location services interactions such as issuing location requests to the MS and receiving location estimates in response.

Use Agilent applications test information to configure your own testing solution or ask for information on 8960 test solutions created with industry partners.
Handover test

Ensure your mobile device has the best Quality of Service under conditions found in real networks by testing device operation during handovers with simultaneous voice and data.

Capture over-the-air protocol and data throughput to see the data exchanged in real time, with full message decodes, giving you a real time view of how handoff between cells affects data transfer. Log, store, retrieve, and analyze previously captured message logs for troubleshooting handovers to ensure uninterrupted service even when crossing cell boundaries.

- **Simultaneous voice and data connections**
  - W-CDMA/HSPA simultaneous services
  - GSM/(E)GPRS dual transfer mode
  - 1xEV-DO/cdma2000 hybrid mode

- **Handovers for voice and data**
  - Two cell data and voice handovers
  - interRAT and intraRAT
  - idle and connected state
  - UMA/GAN

Protocol logging

Wireless Protocol Advisor (WPA) software is included with 8960 lab applications. This software runs on a PC and quickly collects and interprets wireless protocol messaging to verify functionality and isolate protocol problems when developing new wireless products or applications. Streamline troubleshooting and analysis of data transfers with:

- Connection trace for tracking TCP/IP messaging and throughput
- Real time logging of Layer 1, 2 and 3 protocol
- Post-capture analysis of protocol log files
- Configurable trigger settings for easier sorting through the huge volume of messaging to and from the mobile
- Logging options for customized data viewing
- Color tagging and graphical representations highlighting areas of interest

Additional 89600 capabilities

- **Digital fading**
  - Pre-defined, yet customizable fading profiles can be created by combining Agilent’s Baseband Studio software capabilities with 8960 lab applications.

- **Audio**
  - Real-time vocoder, digital audio interface, Perceptual Evaluation of Speech Quality (PESQ) measurement, and voice echo features provide enhanced audio testing with the 8960.

Lab Applications (LA) - Data/services and RF test
- E6701  GSM/GPRS
- E6702  cdma2000
- E6703  W-CDMA/HSPA
- E6704  EGPRS
- E6706  1xEV-DO

Wireless Protocol Advisor (WPA) - Protocol logging
- E6584  Wireless protocol advisor

Baseband Studio (Digital Fading)
- N5101  Baseband studio PCI card
- N5115  Baseband studio for fading software

www.agilent.com/find/basebandstudio

www.agilent.com/find/basebandstudio
Automate real-world testing

The increasing complexity of wireless devices is driving the need to test phones earlier than ever, using real-world user scenarios. As designs progress to smaller devices with more capabilities, developers are finding too many issues late in the development lifecycle. The earlier defects can be found in the development lifecycle, the less costly and time-consuming they are to correct.

Integration and validation engineers need tools for testing data throughput; they need to push large amounts of data at high rates through their devices, run simultaneous activities and applications, and verify the device performs as expected.

N5970/N5971 interactive functional test software for simple and fast automation of complex data tests and simultaneous activities

Interactive Functional Test (IFT) software is a PC-based software program that takes the world-class data test capabilities of the 8960 lab applications and adds a simple yet flexible interface that allows the user to easily create real-world test scenarios to stress test wireless devices.

- Easily automate realistic “user experience” tests to find issues not found through conformance test, early in the design cycle.
- Increase device quality while reducing development and validation time
Simplify data testing with Interactive Functional Test software

- Real-world, simultaneous user activities
- Troubleshooting and data analysis tools
- Automated, menu-driven testing

Real world, simultaneous user activities

Complex data testing is now simpler with menu driven test:

- Initiate simultaneous activities such as FTP, UDP, web browsing, text messaging and handovers
- Specify the characteristics of the activities -- such as multiple files to download, SMS message content length and repetition, handover channel -- and change them over time!
- Introduce impairments like fading, cell power changes, and AWGN

Troubleshooting and data analysis tools

Software that goes beyond just reporting a failure to help you analyze what’s gone wrong -- with tools like protocol logging, data metrics (throughput, download time), activity logging and battery current drain results.

Automated menu-driven testing

Menu-driven testing, easy scripting interface, stress test plan creation, and phone control capabilities make it simple to automate data test for regression and stress testing. Application Programming Interface (API) control is also available for remote or external control.

Interactive Functional Test Software (IFT)

Data/services test automation

N5970  UMTS interactive functional test software
N5971  CDMA interactive functional test software

www.agilent.com/find/8960ift
Conformance test

Fixing defects found from failures at third-party conformance test houses is extremely expensive and time-consuming. Performing GCF (Global Certification Forum) and PTCRB (PCS-Type Certification Review Board) conformance test scripts during the development process provides a faster path to device certification, allowing faster time to market, saving time and money. Reduce time spent in the certification process using conformance test systems based on the 8960 test set.

8960 – the bench top test set with performance meeting the needs of R&D, conformance and manufacturing test

Protocol conformance and network emulation systems The 8960 platform is an integral part of test systems designed for protocol conformance test and integration and certification testing of UMTS handsets. For information on 8960-based test systems created with Anite and other industry partners, contact your Agilent sales representative.

Application conformance – The 8960 is used as the test engine for many industry partner application conformance test systems. Solutions for applications such as UMA/GAN, location based services, and 2G, 3G and 3.5G applications test are available. Contact your Agilent sales representative for more information.

RF verification and conformance
The Agilent GS-8800 is a series of scalable test systems built on the 8960 covering cellular device design verification/pre-conformance, and conformance test needs.

RF design verification
The GS-8830 series of RF design verification systems are designed for pre-conformance testing of UMTS and cdma2000 devices. These scalable systems provide an easy-to-use UI, which makes it simpler for designers to evaluate devices for pre-conformance testing in the design stage.

RF conformance test
The GS-8850 RF conformance test (RCT) systems are full-featured 2G/2.5G/3G test systems for mobile phone conformance and quality assurance test. These systems perform conformance testing prescribed by the Global Certification Forum (GCF) or PCS-type certification review board (PTCRB) for UMTS mobile phones.

RF Conformance and Design Verification Systems
GS-8810 Series compact design verification test systems
GS-8810 super-lite
GS-8810 lite

GS-8830 Series RF design verification test systems
GS-8832 2G RF design verification test
GS-8833 3G RF design verification test
GS-8834 cdma2000/1xEV-DO RF design verification test
GS-8835 UMTS (2G+3G) RF design verification test

GS-8850 Series RF conformance test systems
GS-8852 2G RF conformance test
GS-8853 3G RF conformance test
GS-8855 2G/3G RF conformance test

www.agilent.com/find/gs8800
Manufacturing support

With more cellular devices tested in manufacturing with the 8960 than any other wireless test set, you can design with confidence when testing your designs with the 8960. Using the 8960 in design, integration, validation and conformance saves valuable time transitioning new devices to manufacturing by providing the same testing accuracy and repeatability in the lab as on the production floor.

Reduce time supporting manufacturing test partners when your designers’ bench top equipment is the same equipment used in manufacturing!

Keep your investment current

The 8960 is a flexible test set that can be upgraded to meet changing testing needs. Upgrading an existing 8960 test set offers new technology formats, new functionality, and feature improvements at considerable savings compared to buying a new test set.

Get early access to the latest features via subscription releases with the 8960 Lab Application Annual Contract. Invest once a year and receive a permanent license when a new product is introduced. Stay current with the latest functionality available to bring your cutting-edge devices to market faster! For more information, see www.agilent.com/find/E6720A.

Annual contract benefits

- Early access to new features
- Invest once per year, receive permanent license at each release
- E-mail notifications for new licenses and software

Lab Application Annual Contract

- E6720A-001 GSM/GPRS/EGPRS annual contract
- E6720A-002 cdma2000 annual contract
- E6720A-003 W-CDMA/HSPA annual contract
- E6720A-006 1xEV-DO annual contract
- E6720A-017 UMTS annual contract
- E6720A-201 GSM/GPRS/EGPRS AC extension
- E6720A-203 W-CDMA/HSPA AC extension
- E6720A-206 1xEV-DO AC extension
- E6720A-217 UMTS AC extension

www.agilent.com/find/e6720A
8960 test solutions portfolio

**RF test - Test Applications (TA)**
- E1962  cdma2000
- E1963  W-CDMA/HSPA
- E1966  1xEV-DO
- E1968  GSM/GPRS/EGPRS

www.agilent.com/find/8960mfg

**RF test automation - Wireless Test Manager (WTM)**
- E6567  cdma2000/IS-95/AMPS/1xEV-DO
- E6568  W-CDMA/GSM/GPRS/EGPRS
- N5880  Enhanced cdma2000/IS-95/AMPS
- N5882  Enhanced W-CDMA
- N5884  enhanced 1xEV-DO

www.agilent.com/find/wtm

**Data/services and RF test - Lab Applications (LA)**
- E6701  GSM/GPRS
- E6702  cdma2000
- E6703  W-CDMA/HSPA
- E6704  EGPRS
- E6706  1xEV-DO

**Protocol logging - Wireless Protocol Advisor (WPA)**
- E6584  Wireless protocol advisor

www.agilent.com/find/8960device
design

**Digital Fading - Baseband Studio**
- N5101  Baseband studio PCI card
- N5115  Baseband studio for fading software

www.agilent.com/find/basebandstudio

**RF Conformance and Design Verification Systems**
- GS-8810 Series compact design verification test systems
  - GS-8810  Super-lite
  - GS-8810  Lite
- GS-8830 Series RF design verification test systems
  - GS-8832  2G RF design verification test
  - GS-8833  3G RF design verification test
  - GS-8834  cdma2000/1xEV-DO RF design verification
  - GS-8835  UMTS (2G+3G) RF design verification test
- GS-8850 Series RF conformance test systems
  - GS-8852  2G RF conformance test
  - GS-8853  3G RF conformance test
  - GS-8855  2G/3G RF conformance test

www.agilent.com/find/gs8800

**Data/services test automation**
Interactive Functional Test Software (IFT)
- N5970  UMTS interactive functional test software
- N5971  CDMA interactive functional test software

www.agilent.com/find/8960ift

**Software updates - Lab Application Annual Contract**
- E6720A-001  GSM/GPRS/EGPRS annual contract
- E6720A-002  cdma2000 annual contract
- E6720A-003  W-CDMA/HSPA annual contract
- E6720A-006  1xEV-DO annual contract
- E6720A-017  UMTS annual contract
- E6720A-201  GSM/GPRS/EGPRS AC extension
- E6720A-203  W-CDMA/HSPA AC extension
- E6720A-206  1xEV-DO AC extension
- E6720A-217  UMTS AC extension

www.agilent.com/find/e6720a

**Applications test solutions designed around the 8960 available from other wireless solution providers**
Protocol Conformance Test
- Anite – 2G,3G UMTS protocol conformance
- Spirent – cdma2000 protocol conformance

Applications Conformance Test
- Azimuth – Fixed Mobile Convergence
- Setcom – Data application

Contact your Agilent Sales Representative for Information
Get your instrument repaired right the first time by the people who know it best

Downtime can be expensive. So if an equipment failure occurs, you need to get back up and running as quickly as possible. Sending instruments to a third-party repair provider often wastes a lot of time. Frequently, third-party repairers end up sending hard-to-repair instruments to Agilent anyway. In fact, they are among our largest repair customers!

Only Agilent has the depth of expertise required to diagnose equipment problems quickly and restore equipment to its original working condition.

Factory-trained technicians
Our repair technicians have an average of 15 years of experience, and all are fully trained by Agilent factory experts. All technicians have access to extensive and exclusive library of product information and our service history archive. When they need to, technicians can pick up the phone and talk to factory technology experts.

Get fast access to genuine Agilent parts
Unlike Agilent, other vendors may obtain parts from used equipment – and you have no way to know if those parts have been stressed. Agilent’s largest repair facilities are co-located with its main parts warehouses, so parts for instrument repairs are typically available on the spot. Agilent keeps more than 42,000 parts in stock, enabling fast turnaround on most repairs.

Proven procedures
Agilent repair technicians use proven diagnostic procedures and the latest automated test verification systems to ensure repairs are done correctly. Technicians adhere to stringent electrostatic discharge (ESD) procedures to prevent future instrument problems. Post-repair calibration can also be provided for full standards traceability.

“Like new” performance and accuracy
Remove all doubt about your measurement integrity. When you entrust your instrument to Agilent for repair or calibration, you can be confident that the performance and accuracy of your instrument will be “like new.” If you need absolute confidence in the measurements your instrument makes, let the same people who made it service it and restore it to its original condition. Learn more at: www.agilent.com/find/calibrationquality

Short, predictable turnaround times – with a guarantee
Remove all doubt about getting your instrument back on time, by sending it to Agilent. We know that your repeat business depends on our dependability, so we make it our highest priority to live up to our promises. Get the details at: www.agilent.com/find/caltat_guarantee.

Boost your confidence in your product’s quality by ensuring that your test instruments are calibrated accurately

Calibration and measurement confidence are inextricably linked. To gain the utmost confidence in your measurements, you need to ensure that your test instruments are thoroughly and accurately calibrated. Only with Agilent Calibration services can you get “like new” performance out of Agilent instruments throughout their lifetime.

Automated testing provides more thorough calibrations
To make sure instruments receive the most thorough calibration possible, Agilent has built its metrology expertise into a comprehensive software program that automatically performs a full battery of calibration tests, following manufacturer calibration procedures. Because the tests are automated, we can perform more tests in a shorter period of time.

Lower measurement uncertainties
Agilent provides a calibration with lower measurement uncertainties, lower than you are likely to get elsewhere. The bottom line: no doubt about the accuracy of your test and measurement results.

Adjustments included at no extra cost
Third-party calibration providers can’t perform the adjustments on most of Agilent’s modern instruments. Some can make adjustments on older, or less-complex instruments, but may charge you extra. With Agilent Calibration, adjustments, if required, are included, no matter how complex the instrument or how many test points are out of calibration. Save time and trouble by sending your instruments directly to Agilent for one-stop calibration, adjustment and repairs.

Comprehensive pre- and post-adjustment data
Where applicable, you will receive a full pre-adjustment report on your instrument’s performance, so you’ll know precisely where and how far out of specification it was when you sent it to us. This is a growing requirement for ISO 9000 compliance. Most third-party calibration suppliers provide only post-adjustment data, or charge significantly more for this feature as an “extra.”
Choose the calibration services that meet your needs

Agilent’s calibration laboratories worldwide adhere to procedures that comply with ISO9001 and ISO/IEC 17025:2005. Many Agilent laboratories are ISO 17025 accredited.

Agilent calibration
Our main calibration service that delivers much more than provided elsewhere. Your instrument is calibrated using the full battery of manufacturer-defined tests. No “cutting corners” in an Agilent Calibration. All required adjustments are included. Pre- and post-adjustment measurements are included at no extra charge. You remove all doubt when you come to Agilent for calibration services.

Accredited calibration
For the highest confidence in your measurement instrument, this service provides measurements with uncertainties that are accredited by the local accrediting agency. Agilent’s best measurement uncertainties are available via your local accrediting agency’s Web site.

Make sure you are getting a high-quality calibration

Some calibration vendors cut corners, usually because they lack the proper equipment to do a comprehensive calibration, or because they have priced their service low to win business, but too low to cover a more thorough procedure. To see a chart that compares the calibration tests performed by Agilent and by a typical third-party calibration provider, go to: www.agilent.com/find/calibrationquality

When third-party providers reduce the breadth of functions they test and reduce the number of test points for each function, they introduce gaps that could let inaccurate instruments through the net. In turn, you could be making incorrect measurements without knowing it – you run the risk of shipping faulty products, or wasting valuable resources reworking products that are within specification. Using Agilent calibration services protects you from these costs – a cheaper calibration supplier may cost you more in the long run.

Fast, easy access to repair and calibration information for your company

Agilent’s Infoline is a free suite of Internet services that provides a wealth of information about your equipment manufactured and serviced by Agilent. You can track the status of instruments that are being repaired or calibrated, sign up for “calibration due” notices, input requests for service, look up repair and calibration pricing, check warranty status and even find your calibration certificates online. Available 24x7, Infoline is designed to save you time and help you track your equipment maintenance more effectively. Register free at: www.agilent.com/find/service

And when you purchase a service agreement, you get access to even more capabilities that can help you manage your equipment assets more efficiently:

- Enter your company’s equipment and user information into your own private database
- Run management reports (by user, department, location, manufacturer, model, service provider, availability, etc.)
- Run service reports (calibration due, service history, etc.)
- Create custom reports
- And more!

Choose the services purchasing option that best fits your needs

Agilent offers several ways to purchase Repair and Calibration Services. You can lower your overall maintenance costs with a service agreement, or opt for maximum flexibility by choosing per incident services.

Go to www.agilent.com/find/assist for telephone numbers of your local Agilent support organization.
Additional information

For Agilent’s multi-format R&D test solutions, visit
www.agilent.com/find/8960devicedesign

For the family of interactive functional test software, visit
www.agilent.com/find/8960ift

For the family of wireless test managers, visit
www.agilent.com/find/wtm

For RF conformance systems, visit
www.agilent.com/find/GS8800

For Anite conformance test systems, visit
www.anite.com/wireless (select handset conformance testing)
For more information on repair and calibration services, go to:

www.agilent.com/find/removealldoubt

For more information on Agilent Technologies’ products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

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<td>43 (0) 1 360 277 1571</td>
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<td>Belgium</td>
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<td>358 (0) 10 855 2100</td>
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<td>Netherlands</td>
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<td>44 (0) 118 9276201</td>
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Other European Countries:
www.agilent.com/find/contactus

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Printed in USA, February 17, 2010
5988-5950EN

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