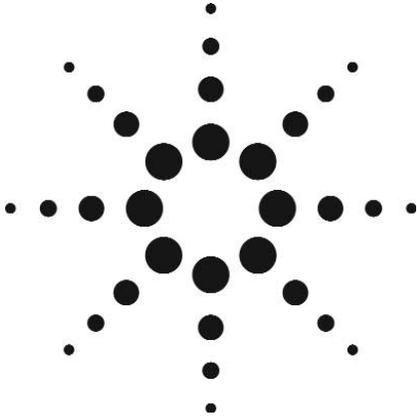


Agilent Wireless Test Fixtures

E8421A and Z2049A



Better
Higher
Shorter
Faster

Better RF environment

Higher yield of critical production processes

Shorter test times

Faster time to market



Whether you choose the feature-rich, automated E8421A or the easy-to-operate manual Z2049A Wireless Test Fixture, you'll get an ideal platform for RF test of wireless appliances in manufacturing as well as R&D. Both provide excellent RF isolation for superior consistency and

reliability. Both are adaptable inline for greater efficiency in testing multiple devices. And both include Agilent's legendary global service and support to help you implement your test system and keep them running at lower costs.



Agilent Technologies

Agilent E8421A

The Agilent E8421A wireless test fixture has been designed to optimize critical features to improve the RF test environment. These features include:

- RF isolation from external interference – The E8421A wireless test fixture utilizes nickel-plated metal surfaces and high performance gaskets on all external seams, as well as filtered connectors on all signal interconnections to provide greater than 60 dB of RF isolation at 800-2200 MHz.
- OTA coupler – Agilent's functional test OTA coupler (patent pending) provides the ability to test the antenna and can eliminate the need for a galvanic RF connection to the DUT with some antennas. Custom couplers can also be designed to perform parametric RF testing through the DUT's antenna.
- RF absorber kit – A RF absorber added to the interior walls of the RF enclosure of the E8421A minimizes internal reflections making wideband OTA measurements possible. This absorber also increases the RF isolation of the fixture.

- Low spurious noise – The E8421A wireless test fixture uses an isolation technique to eliminate spurious noise, like digital processor and communication signals, from occurring in the RF enclosure during critical measurement times (patent pending). Small amounts of spurious noise can affect test results and impact product yield, especially during OTA measurements.
- Nest kit materials and design – The nest kits available with the E8421A wireless test fixture consist of materials specifically designed to provide the required mechanical and electrical properties required for testing RF appliances, including sensitive OTA measurements. Electrically reflective surfaces have been minimized and moved away from the DUT.

Fast and flexible automatic/manual test

Production line implementations often vary between lines, even within the same manufacturer. A particular device's production process may implement an automated or robotic loading process while another device's

production process may implement a manual loading process. The E8421A provides flexibility between both manual and automated loading. Standardization of the fixture base unit is still capable across line processes regardless of whether the devices are manually or mechanically loaded into the fixture.

Expand your capabilities for today and tomorrow

Built-in features such as an SCOM customization area, fixture communication/control, power for upper or lower nest custom PCAs, control and mechanical space for eight more pneumatic actuations and EEPROM addressing space available for storage of customer data provide upgradeability for future needs.

High reliability and low maintenance

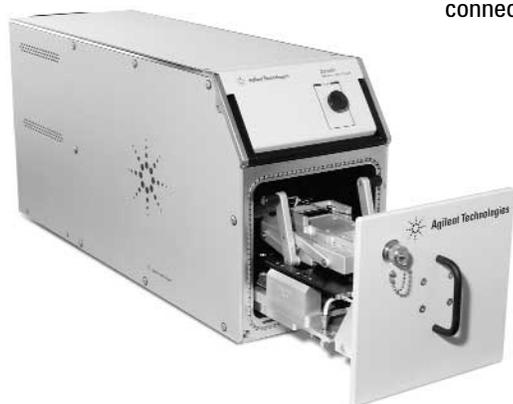
The Agilent E8421A wireless test fixture's rugged design and reliable mechanisms minimize your test and production downtime. It is based on Agilent's custom fixture designs, which have been developed over several years with rigorous life testing.



Agilent Z2049A

The Agilent Z2049A is a simplified version of the E8421A. It is intended to provide a very simple RF test environment for use with Agilent systems and solutions. The Z2049A has been designed to improve the RF test environment with key features such as:

- High-performance RF gaskets, nickel-plated metal surfaces, and filtered connectors on all signal paths provide a consistent and reliable RF environment. Typical RF isolation is 65-80 dB from 800-2200 MHz. This performance has been fully characterized in a mode-stirred reverberation chamber, the standard in RF isolation measurement techniques.
- The optional RF absorber kit, added to the inside of the side covers, minimizes internal reflections and makes wideband over-the-air measurements possible. Because reflections are reduced, the absorber also increases RF isolation by 5-10 dB.
- Nest materials and design have been specifically chosen to provide the required mechanical and electrical properties for testing wireless devices, including sensitive over-the-air measurements. Electrically reflective surfaces have been minimized and moved away from the DUT.



Consistent test environment for fast time to market

The Z2049A provides a consistent RF test environment that helps you speed your new products from R&D into first production, and from first production to volume production. During development, simple nests can be used to run experiments, connected to bench-top instruments. These same nests can then be used in prototype runs and early production. As the product stabilizes, the nest can be modified for easier handling and greater automation if desired. The Z2049A can also be used in QA and rework stations, eliminating different test environments and unnecessary delays.

Versatile standard configuration – tailored to meet your needs

The standard Z2049A includes an easy-to-use pneumatic drawer latch with front panel release switch. Once the DUT is loaded into the fixture, the operator pushes the drawer. When the drawer is almost closed, a pneumatic cylinder engages the drawer to create a RF-tight seal. After the test is complete, the operator pushes a front panel switch, releasing the pneumatic latch. The drawer can then be easily opened and the DUT removed.

The Z2049A optional configurations include the following signal paths from the rear panel to the nest interface: 1 RF, serial DUT communication, DUT power, and 23 General Purpose lines. In addition, there is a RF calibration connector on the front door.

Nest Kit Options offer fast custom development

Agilent's Nest Kit Options let you use the same fixture to test phones, board assemblies, PDAs and wireless LAN devices. This flexible design allows you to dynamically adjust your production line to meet your changing needs, making your manufacturing test process more adaptable and reusable.

Option 200 - Final Nest Kit

Includes assembled base nest parts and tailoring process document to help design new nests

Option 210 - Quick Nest Kit

Allows the user to make a basic nest and manual electrical connection to the fixture resources

Option 220 - Board Test Kit

Includes assembled base nest parts and tailoring process document to help design new top and bottom side probe board nests

Option 230 - Acoustic Test Kit For Fixture

Includes speaker, microphone, cabling, and hardware for installation in upper nest)

Option 240 - Non-Parametric Over-The-Air Coupler (OTA)

Useful for functional antenna test and lower-performance testing of the RF interface. Includes the coupler and documentation for installation, characterization and use. Should be used with the Final or Quick Nest Kits.

For more information on Nest tailoring, contact your local field representative

www.agilent.com

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