

# Agilent ESA-E Series Spectrum Analyzers Measuring signals above 26.5 GHz

## Faster millimeter-wave analysis

To speed the maintenance of millimeter-wave systems, the E4407B ESA-E series spectrum analyzer with option AYZ lets you extend frequency coverage to >110 GHz. For example, you can perform up to 23 measurements per second when sweeping the A-band (26.5 GHz to 40 GHz), which is up to 13 times faster than previously available. It's not just the same measurement faster, with the 22.5 ms sweep time providing up to 22 times improvement in the probability of intercepting intermittent signals in signal surveillance applications.

## New standards in millimeter-wave measurement confidence

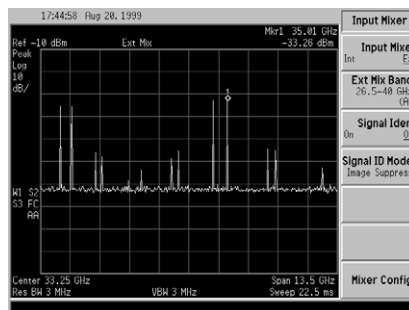
When combined with an 11970 series mixers, the E4407B option AYZ provides  $\pm 3.2$  dB amplitude accuracy up to 110 GHz. The built-in amplitude correction feature lets you correct for mixer conversion loss over the full frequency range. This results in millimeter measurement confidence, improved yields and narrow test margins.

## Digital resolving power

Operation in the narrow, digital resolution bandwidth (RBW) filters (10 Hz to 300 Hz) provides finer resolving power and sensitivity without sacrificing measurement speed. A narrow shape factor (5:1) helps resolve closely spaced signals. Spur searching is enhanced with the -127 dBm sensitivity in the A-band, and -106 dBm at 110 GHz. These digital RBW filters sweep up to 225 times faster than their analog equivalents, while improving sensitivity.

## Suppress images

A new, unique image suppression form of signal identification makes it easy to identify the true signals quickly by suppressing undesirable mixing products.



Non-preselected millimeter display

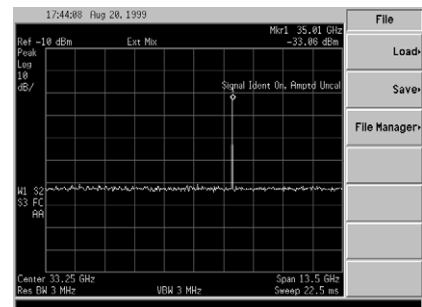


Image suppressed millimeter display

## Rugged portability

Take the analyzer's lab grade performance into the field protected by a rubber-encased frame, rain-resistant front panel, and shielded vents. Five-minute warm-up offers full measurement accuracy without waiting. An automatic background alignment maintains the full measurement accuracy over time and varying temperatures. Run the analyzer on an optional rechargeable battery or a vehicle battery using the optional 12-Vdc power cable.



## Additional information

Option AYZ supports HP external mixers including both the 11974 series preselected mixers and the 11970 series non-preselected mixers. The E4407B Option AYZ will also support mixers that require biasing. 5061-5458E SMA type cables should be used to connect the mixer IF and LO ports to the analyzer.

## Literature

*Select the Right Portable Spectrum Analyzer,*  
Selection Guide,  
literature number 5968-3413E

*ESA-E Series Spectrum Analyzer,*  
Specifications,  
literature number 5968-3386E

*ESA/EMC Spectrum Analyzer,*  
Configuration Guide,  
literature number 5968-3412E

*ESA-E Series Spectrum Analyzer,*  
Brochure,  
literature number 5968-3278E

*11970 Series Harmonic Mixers,*  
Specifications,  
literature number 5968-1445E

*11974 Series Harmonic Mixers,*  
Specifications,  
literature number 5952-2748

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