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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8414A

HP Agilent 8414A Polar Display Plug-In for 8410 The HP 8414A is the polar CRT plug-in for 8410A/B/C mainframes. OEM 8410 system literature describe polar display of amplitude and phase for reflection-coefficient measurements, with Smith-chart overlays for normalized impedance or admittance. 8414B adds a separate rear vertical-blanking connector. Swept reflection coefficient and Smith-chart impedance display on an 8410 network analyzer. Smith chart overlays for impedance or admittance The HP 8414A is the polar CRT plug-in for 8410A/B/C mainframes. OEM 8410 system literature describe polar display of amplitude and phase for reflection-coefficient measurements, with Smith-chart overlays for normalized impedance or admittance. 8414B adds a separate rear vertical-blanking connector. Swept reflection coefficient and Smith-chart impedance display on an 8410 network analyzer. Smith chart overlays for impedance or admittance 8414B adds rear vertical blanking connector

**MODEL****Agilent / Keysight
8414A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****8414A****LISTING**[https://aumictechlabs.c
om/products/8414a-2/](https://aumictechlabs.com/products/8414a-2/)

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8414A is a polar display unit designed to extend the measurement capabilities of HP 8410 series network analyzers. It has simultaneous visualization of magnitude and phase data, enabling comprehensive characterization of complex small-signal scattering parameters without the limitations of rectilinear displays. Technical Specifications Display Type: Polar coordinate display for magnitude and phase visualization Dynamic Range: Accurate

readings from approximately 40 dB of loss down to receiver noise floor

Phase Data Computation:
X and Y outputs enable phase calculation with freedom from phase ambiguities near the ± 180 degree point

Key Features
Extends measurement range beyond rectilinear display capability
Provides detailed phase information for network characterization
Integrates with HP 8410 series analyzer outputs (X and Y channels)
Eliminates phase ambiguities inherent to single-channel phase measurement near ± 180 degrees

Typical Applications
Complex impedance and admittance measurements
Small-signal device characterization
Network analysis requiring both magnitude and phase information simultaneously
Scattering parameter visualization for transmission line and component testing

Compatibility & Integration
The 8414A works with direct integration with HP 8410A and HP 8410B network analyzers. It functions as a display accessory, accepting X and Y outputs from the analyzer to render polar format data. The unit operates within the measurement framework of the 8410 series system, allowing seamless incorporation into complete network analysis configurations with other compatible test accessories. Note: This is a discontinued product. Original documentation reference: manual part number 08414-90016, revision May 1973.

8414A Characteristics / Specifications

PARAMETER	VALUE
Model	8414A
Instrument Type	Polar display plug-in
Host Mainframe	8410A 8410B 8410C
Display Type	polar CRT
Overlays	Smith chart impedance or admittance
Measurement	reflection coefficient amplitude and phase
RevisionBDifference	8414B adds separate rear vertical blanking connector
Companion Meter Plugin	8413A phase-gain indicator
Companion Rectangular Plugin	8412A
Frequency Coverage	set by 8411A converter (110 MHz to 12.4 or 18 GHz)
If Chain	8410 20 MHz then 278 kHz IF
Manufacturer	HP Agilent Keysight
Mechanical Package	8410 display plug-in
Test Sets	874x reflection and S-parameter test sets
System Family	HP 8410 network analyzer
Minimum Frequency	110 MHz with 8411A
Maximum Frequency Standard	12.4 GHz with standard 8411A
Extended Frequency	18 GHz with 8411A option 18 converter
Typical Source	8620C sweeper family
Display Coordinates	polar amplitude and phase
Application Class	reflection and impedance
Smith Overlay	normalized impedance or admittance overlays

8414A Specifications

PARAMETER	VALUE
Applications	Swept reflection coefficient and Smith-chart impedance display on an 8410 network analyzer.
Smith chart overlays for impedance or admittance	Replaces 8413A in the 8410 display slot
Technical Specifications	Model: 8414A

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes	
From HP 8410 system literature for the 8414A polar display. 8414B is the blanking-connector revision; electrical IF path is the 8410 mainframe.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.