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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8413A

HP Agilent 8413A Phase Gain Indicator Plug-In for 8410 The HP 8413A is the meter plug-in for 8410A/B/C mainframes. OEM 8410 system literature list amplitude ratio readout in dB with 0.1 dB resolution and phase over a 360 degree unambiguous range with 0.2 degree meter resolution, plus calibrated analog outputs in dB/mV and deg/mV for scopes or X-Y recorders. Single-frequency or swept gain and phase meter readout on an 8410 system, and IF-substitution measurements using the mainframe attenuator. Compares amplitudes of the two 8410 IF signals The HP 8413A is the meter plug-in for 8410A/B/C mainframes. OEM 8410 system literature list amplitude ratio readout in dB with 0.1 dB resolution and phase over a 360 degree unambiguous range with 0.2 degree meter resolution, plus calibrated analog outputs in dB/mV and deg/mV for scopes or X-Y recorders. Single-frequency or swept gain and phase meter readout on an 8410 system, and IF-substitution measurements using the mainframe attenuator. Compares amplitudes of the two 8410 IF signals Calibrated dB/mV and deg/mV recorder outputs



MODEL

**Agilent / Keysight
8413A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8413A

LISTING

<https://aumictechlabs.com/products/8413a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8413A is a phase-gain indicator plug-in meter display unit engineered to extend the measurement capabilities of the 8410A Network Analyzer. It measures and displays relative amplitude and phase difference between reference and test channel signals, delivering

the gain and phase characterization data essential for component and system performance validation.

Technical Specifications

Amplitude Measurement: 80 dB range with selectable resolutions of 10 dB, 2.5 dB, 1 dB, and 0.25 dB

Phase Measurement: $\pm 180^\circ$ range with selectable resolutions of 90° , 45° , 10° , and 1°

Input Channels: Reference and test signal inputs for direct signal comparison

Output Connectors: Linear phase and logarithmic amplitude outputs for oscilloscope or X-Y recorder display

Key Features

Front-panel pushbutton controls for function and range selection

Calibrated meter presentation of swept frequency response versus reference signal

Logarithmic amplitude scaling and linear phase scaling for standard graphical analysis

Plug-in form factor for direct mainframe integration

Typical Applications

The 8413A is suited for network analysis workflows requiring simultaneous phase and gain measurement, including filter characterization, amplifier performance validation, and impedance matching assessment across swept frequency ranges.

Compatibility & Integration

This instrument is designed as a plug-in display module for the Agilent/Keysight 8410A Network Analyzer mainframe. The 8413A represents a legacy measurement solution documented in its Operating and Service Manual (part number 08413-90011, May 1974). This product is no longer manufactured or directly supported by Keysight.

8413A Characteristics / Specifications

PARAMETER	VALUE
Model	8413A
Instrument Type	Phase-gain indicator plug-in
Host Mainframe	8410A 8410B 8410C
Amplitude Readout	ratio in dB
Amplitude Resolution	0.1 dB
Phase Range	360 degrees unambiguous
Phase Resolution Meter	0.2 degree
Analog Output Amplitude	calibrated dB per mV
Analog Output Phase	calibrated degrees per mV
If Chain	uses 8410 20 MHz then 278 kHz IF
Companion Polar Display	8414A used in place of 8413A for Smith-chart polar plots
Companion Rectangular Display	8412A phase/magnitude CRT
Frequency Coverage	set by 8411A converter (110 MHz to 12.4 or 18 GHz)
Manufacturer	HP Agilent Keysight
Mechanical Package	8410 display plug-in
Recorder Use	direct-coupled outputs for oscilloscope or X-Y recorder
Function Select	amplitude or phase via front-panel function button
System Family	HP 8410 network analyzer
Minimum Frequency	110 MHz with 8411A
Maximum Frequency Standard	12.4 GHz with standard 8411A
Measurement	relative amplitude and phase of reference vs test IF
If Substitution	uses mainframe 0 to 69 dB IF attenuator

8413A Specifications

PARAMETER	VALUE
Applications	Single-frequency or swept gain and phase meter readout on an 8410 system, and IF-substitution measurements using the mainframe attenuator.
Key Features	Compares amplitudes of the two 8410 IF signals
Phase difference on the same meter	0.1 dB amplitude resolution
Technical Specifications	Model: 8413A
Notes	From HP 8410 system description of the 8413A phase-gain indicator. Frequency limits are those of the paired 8411A converter.

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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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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30-day returns
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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.