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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 11848A Phase noise interface for the 3048A

HP / Agilent 11848A Phase Noise Interface for 3048A The HP/Agilent 11848A is the phase noise interface at the core of the HP 3048A Phase Noise Measurement System. It houses phase detectors, low-noise amplifiers, filters, and path switches that demodulate carrier phase noise and AM noise for baseband analysis. Standard coverage is 5 MHz to 1600 MHz, extendable to 18 GHz with Option 201 microwave phase detector. Four built-in very low-noise sources support functional path checks and single-frequency reference use. The 11848A operates under 3048A software with an FFT analyzer such as the HP 3561A and asystem controller. The HP/Agilent 11848A is the phase noise interface at the core of the HP 3048A Phase Noise Measurement System. It houses phase detectors, low-noise amplifiers, filters, and path switches that demodulate carrier phase noise and AM noise for baseband analysis. Standard coverage is 5 MHz to 1600 MHz, extendable to 18 GHz with Option 201 microwave phase detector. Four built-in very low-noise sources support functional path checks and single-frequency reference use. The 11848A operates under 3048A software with an FFT analyzer such as the HP 3561A and asystem controller.



MODEL

**HP / Agilent
11848A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

11848A

LISTING

<https://aumictechlabs.com/products/11848a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 11848A Phase Noise Interface is a measurement module within the HP/Agilent 3048A Phase Noise Measurement System. It enables absolute residual, AM noise, and pulse measurements across a broad frequency span through integrated phase detectors, amplifiers, filters, and switches. The module supports both internal and external phase detection architectures, with internal reference oscillator outputs for system functional verification.

Technical Specifications

Frequency Coverage Internal mixer: 5 MHz to 1.6 GHz With Option 201 (High Frequency Phase Detector): extends to 18 GHz without external down-conversion External phase detector input for out-of-range measurements

Input Amplitude Requirements 5 MHz to 1.6 GHz operation: Left port: +15 dBm to +23 dBm Right port: 0 dBm to +23 dBm 1.2 GHz to 18 GHz (Option 201): Left port: +7 dBm to +10 dBm Right port: 0 dBm to +10 dBm

Internal Reference Oscillator Outputs 10 MHz at +15 dBm with ± 100 Hz tuning 10 MHz at +6 dBm with ± 1 kHz tuning 350–500 MHz at +17 dBm with ± 20 MHz tuning 400 MHz at –5 dBm (fixed tuning)

Power Fuse ratings: 0.75 A (115 Vac, HP part 2110-0063); 0.5 A (230 Vac, HP part 2110-0012). Line power cable supplied per destination.

Key Features Supports two-port absolute residual measurements for phase noise characterization AM noise measurement capability integrated into measurement framework Built-in sources for pre-measurement functional verification of signal circuits GPIB programmable interface for automated control and integration

Typical Applications Phase noise and AM noise analysis of RF/microwave signal sources Residual phase noise measurement of oscillators and synthesizers Pulse modulation measurement analysis

Compatibility & Integration Designed as an integral module of the HP/Agilent 3048A Phase Noise Measurement System. Compatible with HP 3561A Dynamic Signal Analyzer for demodulated phase noise measurement. Works with HP 8662A and 8663A Synthesized Signal Generators. Accepts user-supplied external mixers. GPIB control requires National Instruments GPIB adapter.

Features & description

From manufacturer datasheet

Features

- Phase detectors, LNAs, filters, and RF path switching

Applications

- Absolute and residual phase noise of oscillators, synthesizers, and VCOs

Built-in VCO range: about 350 to 500 MHz

Measurement techniques: PLL and phase-detector based AM noise capability: yes via interface paths
Line power fuse 115 Vac: 0.75 A Line power fuse 230 Vac: 0.5 A Spectrum analyzer output termination:
50 ohm Controller platforms: HP 9000 Series 300 or Vectra PC class Software shipped with interface:
HP 3048A software set Noise floor fixture part: 11848-61032 class Requires companion analyzer: HP
3561A or equivalent in system Standalone meter: no requires 3048A software environment Notes
Specs from HP 3048A technical data, 11848A service manual, and calibration literature. Dedicated
11848A-focused sheet; see also hp-3048a-11848a.txt for system pairing. Confirm Option 201 if
microwave coverage above 1.6 GHz is required.

11848A Characteristics / Specifications

PARAMETER	VALUE
Model	11848A
Manufacturer	Hewlett-Packard / Agilent
Instrument Type	Phase Noise Interface
Alias	HP 11848A; Agilent 11848A
System family	HP 3048A Phase Noise Measurement System
Standard phase detector range	5 MHz to 1600 MHz
FFT offset with 3561A	to 100 kHz
Minimum displayed offset class	about 0.1 Hz near carrier
Measurement techniques	PLL and phase-detector based
AM noise capability	yes via interface paths
Line power fuse 115 Vac	0.75 A
Line power fuse 230 Vac	0.5 A
Spectrum analyzer output termination	50 ohm
Controller platforms	HP 9000 Series 300 or Vectra PC class
Software shipped with interface	HP 3048A software set
Noise floor fixture part	11848-61032 class
Requires companion analyzer	HP 3561A or equivalent in system
Standalone meter	no requires 3048A software environment Notes Specs from HP 3048A technical data, 11848A service manual, and calibration literature. Dedicated 11848A-focused sheet; see also hp-3048a-11848a.txt for system pairing. Confirm Option 201 if microwave coverage above 1.6 GHz is required.

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

Specifications

PARAMETER	VALUE
Model	11848A
Manufacturer	Hewlett-Packard / Agilent
Instrument Type	Phase Noise Interface

Specifications

PARAMETER	VALUE
Alias	HP 11848A; Agilent 11848A
System family	HP 3048A Phase Noise Measurement System
Standard phase detector range	5 MHz to 1600 MHz

Option 201 microwave range: about 1.2 GHz to 18 GHz

FFT offset with 3561A: to 100 kHz

Minimum displayed offset class: about 0.1 Hz near carrier

Built-in source 10 MHz: yes low-noise

Built-in source 400 MHz: yes low-noise

Built-in VCO range: about 350 to 500 MHz

Specifications

PARAMETER	VALUE
Measurement techniques	PLL and phase-detector based
AM noise capability	yes via interface paths
Line power fuse 115 Vac	0.75 A

Specifications

PARAMETER	VALUE
Line power fuse 230 Vac	0.5 A
Spectrum analyzer output termination	50 ohm
Controller platforms	HP 9000 Series 300 or Vectra PC class

Specifications

PARAMETER	VALUE
Software shipped with interface	HP 3048A software set
Noise floor fixture part	11848-61032 class
Requires companion analyzer	HP 3561A or equivalent in system

Standalone meter: no requires 3048A software environment

Notes

Specs from HP 3048A technical data, 11848A service manual, and calibration literature. Dedicated 11848A-focused sheet; see also hp-3048a-11848a.txt for system pairing. Confirm Option 201 if microwave coverage above 1.6 GHz is required.

Ordering Information

OPTION	DESCRIPTION
Option 201	microwave phase detector. Four built-in very low-noise sources support functional path checks and single-frequency reference use. The 11848A operates under 3048

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.