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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 11664A

Agilent Keysight 11664A Scalar Detector 10 MHz to 18 GHz The HP 11664A is an AC-coupled scalar detector for the 8755C swept amplitude analyzer and 8756A scalar network analyzer. OEM 11664A detector specifications list 10 MHz to 18 GHz, +10 dBm to minus 50 dBm input range, 50 ohm nominal impedance, 1.2 m cable, and 0.17 kg net weight. Detection requires 27.8 kHz square-wave amplitude modulation from the host analyzer. Simultaneous scalar transmission and reflection measurements with two or three 11664A detectors (or detectors plusabridge) on 8755C/8756A systems. The HP 11664A is an AC-coupled scalar detector for the 8755C swept amplitude analyzer and 8756A scalar network analyzer. OEM 11664A detector specifications list 10 MHz to 18 GHz, +10 dBm to minus 50 dBm input range, 50 ohm nominal impedance, 1.2 m cable, and 0.17 kg net weight. Detection requires 27.8 kHz square-wave amplitude modulation from the host analyzer. Simultaneous scalar transmission and reflection measurements with two or three 11664A detectors (or detectors plusabridge) on 8755C/8756A systems.

**MODEL****Agilent / Keysight
11664A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****11664A****LISTING**<https://aumictechlabs.com/products/11664a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 11664A is an envelope detector engineered for scalar network analyzers in the 8755, 8756, and 8757 series. It demodulates 27.8 kHz square-wave amplitude-modulated RF signals and presents detection results directly on the analyzer display. Operating in AC mode only,

this detector covers 10 MHz to 18 GHz with a maximum input power rating of +20 dBm (100 mW) and 50 ohm input impedance. Technical Specifications Frequency Range: 10 MHz to 18 GHz Detection Range: +16 dBm to -60 dBm Maximum Input Power: +20 dBm (100 mW) Input Impedance: 50 ohms Input Connector: Type N male (standard); APC-7 (Option 001); SMA jack (Option 002); Type N female (Special Order) Cable Length: 48 inches (1.2 meters) Weight: 6 oz (0.17 kg) Operating Temperature: 0 to 55 °C Storage Temperature: -40 to 75 °C Key Features Requires 27.8 kHz square-wave amplitude modulation of RF input signal Detector-to-detector tracking specifications: - 10 MHz to 8 GHz: <0.5 dB - 8 GHz to 12 GHz: <1.0 dB - 12 GHz to 18 GHz: <1.5 dB Includes color-coded snap-on identification clips Compact, lightweight design at 6 ounces Typical Applications Scalar network analysis and RF envelope detection across microwave and millimeter-wave bands. Suited for swept amplitude measurements where modulated signal detection is required. Compatibility & Integration Designed for integration with Keysight/Agilent 8755, 8756, and 8757 series scalar network analyzers, as well as HP 8755A, 8755C, and 8756A instruments. This is a discontinued product.

11664A Characteristics / Specifications

PARAMETER	VALUE
Model	11664A
Instrument Type	Scalar network analyzer detector
Host Analyzers	HP 8755C swept amplitude analyzer or HP 8756A scalar network analyzer
Frequency Range	10 MHz to 18 GHz
Input Power Range	+10 dBm to minus 50 dBm
Detection Scheme	AC coupled; requires 27.8 kHz square wave AM on the RF
Input Impedance	50 ohm nominal
Return Loss 10 Mhz To 40 Mhz	greater than or equal to 10 dB (SWR 1.92), 15 C to 35 C table
Return Loss 40 Mhz To 4 Ghz	greater than or equal to 20 dB (SWR 1.22)
Return Loss 4 Ghz To 12 Ghz	greater than or equal to 18 dB (SWR 1.29)
Return Loss 12 Ghz To 18 Ghz	16 dB (SWR 1.38)
Frequency Response Bands	specified in 10 MHz to 8 GHz, 8 GHz to 12 GHz, and 12 GHz to 18 GHz segments
Operating Temperature	0 C to 55 C
Storage Temperature	minus 40 C to 75 C
Standard Connector	TypeNmale
Special Order Connector	TypeNfemale
Cable Length	1.2 metres
Weight Net	0.17 kg
Typical Damage Level	typical +20 dBm
Detectors Powered By Host	host analyzer powers three 11664A detectors
Bridge Companion	two detectors and a bridge enable simultaneous transmission and reflection
Related Splitter	HP 11667A power splitter used in 10 MHz to 18 GHz scalar setups
Return loss	10 Mhz To 40 Mhz: greater than or equal to 10 dB (SWR 1.92), 15 C to 35 C table

11664A Specifications

PARAMETER	VALUE
Agilent Keysight 11664A Scalar Detector 10 MHz to 18 GHz	Overview
Key Features	10 MHz to 18 GHz coaxial detector
Works with 8755C and 8756A	Standard Type N male; Option 001 APC-7
Technical Specifications	Model: 11664A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to 75 C
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Standard Connector	TypeNmale
Special Order Connector	TypeNfemale
Cable Length	1.2 metres
Weight Net	0.17 kg
Typical Damage Level	typical +20 dBm
Detectors Powered By Host	host analyzer powers three 11664A detectors
Bridge Companion	two detectors andabridge enable simultaneous transmission and reflection
Related Splitter	HP 11667A power splitter used in 10 MHz to 18 GHz scalar setups

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 list 10 MHz to 18 GHz, +10 dBm to minus 50 dBm input range, 50 ohm nominal impedance, 1.2 m cable, and 0.17 kg net weight. Detection requires 27.8 kHz square-wave amplitude modulation from the host analyzer.

Applications

Simultaneous scalar transmission and reflection measurements with two or three 11664A detectors (or detectors plusabridge) on 8755C/8756A systems.

Key Features

10 MHz to 18 GHz coaxial detector

Works with 8755C and 8756A

Standard TypeNmale; Option 001 APC-7

1.2 m cable to the analyzer

Host powers up to three detectors

Technical Specifications

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PARAMETER	VALUE
Model	11664A
Instrument Type	Scalar network analyzer detector
Host Analyzers	HP 8755C swept amplitude analyzer or HP 8756A scalar network analyzer
Frequency Range	10 MHz to 18 GHz
Input Power Range	+10 dBm to minus 50 dBm
Detection Scheme	AC coupled; requires 27.8 kHz square wave AM on the RF
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Return Loss 12 Ghz To 18 Ghz	16 dB (SWR 1.38)
Frequency Response Bands	specified in 10 MHz to 8 GHz, 8 GHz to 12 GHz, and 12 GHz to 18 GHz segments
Operating Temperature	0 C to 55 C
Storage Temperature	minus 40 C to 75 C
Standard Connector	TypeNmale

Option 001 Connector: APC-7

Specifications

PARAMETER	VALUE
Special Order Connector	TypeNfemale
Cable Length	1.2 metres
Weight Net	0.17 kg
Typical Damage Level	typical +20 dBm
Detectors Powered By Host	host analyzer powers three 11664A detectors
Bridge Companion	two detectors and a bridge enable simultaneous transmission and reflection
Related Splitter	HP 11667A power splitter used in 10 MHz to 18 GHz scalar setups

Option 001 Bridge Note: Option 001 APC-7 units are tested with 85021A class bridges; TypeN with 85021C class

Notes

Numeric rows from HP 11664A Detector operating/service specifications Table 1-1 and general specifications. Banded return-loss/SWR values are the tabulated reflection specifications at 15 C to 35 C.

Ordering Information

OPTION	DESCRIPTION
Option 001	Connector: APC-7

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

Aumictech

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NIST-traceable calibration · SAM registered ·
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Generated August 14, 2026

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