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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 16442B

HP Agilent Keysight 16442B Test Fixture for B1500A/4155/4156 Semiconductor Analyzers The Keysight 16442B is a 48-pin test fixture for B1500A, 4155C/4156C, and related semiconductor parameter analyzers. OEM B1500A accessory catalogs list 16442B as the shielded test fixture with 48 pins, triaxial/coaxial force-sense connections, and interlock for Kelvin measurements of packaged devices. IV and CV characterization of packaged semiconductors on B1500/4155/4156 analyzers. Instrument Type: Semiconductor test fixture The Keysight 16442B is a 48-pin test fixture for B1500A, 4155C/4156C, and related semiconductor parameter analyzers. OEM B1500A accessory catalogs list 16442B as the shielded test fixture with 48 pins, triaxial/coaxial force-sense connections, and interlock for Kelvin measurements of packaged devices. IV and CV characterization of packaged semiconductors on B1500/4155/4156 analyzers. Instrument Type: Semiconductor test fixture Host Analyzers: B1500A, 4155C, 4156C class



MODEL

**Agilent / Keysight
16442B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16442B

LISTING

<https://aumictechlabs.com/products/16442b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 16442B is a modular test fixture that interfaces semiconductor parameter analyzers and device analyzers with packaged electronic components for precise DC characterization. The fixture accommodates a broad range of component types through interchangeable socket modules, supporting both laboratory and production measurement environments. Its design

includes a safety interlock system that prevents electrical hazards when operating with high-voltage instruments, blocking voltage output when the fixture lid is open.

Technical Specifications

Input/Output Connectors 6× Triaxial connectors for SMU channels (configurable as 6 non-Kelvin or 3 Kelvin connectors) 2× BNC connectors for VSU channels 2× BNC connectors for VMU channels 2× BNC connectors for PGU channels 1× Triaxial connector for GNDU 1× 6-pin connector for interlock terminal

Electrical Ratings Triaxial connectors rated to 200 V and 1 A DC

Socket Module Support 28-pin Dual-In-Line Package (DIP) 18-pin DIP 4-pin TO 0.075-inch universal socket 0.05-inch universal socket 0.5-inch universal socket

Blank PTFE board

Key Features Interchangeable socket modules enable testing across diverse component geometries and pin counts Triaxial and BNC connectors provide low-noise signal paths for sensitive measurements Safety interlock terminal requires connection to the measurement instrument's interlock connector to prevent accidental high-voltage exposure

Comprehensive accessory kit included: miniature banana-to-pin plugs, pin-to-pin cables, miniature banana-to-clip cables, miniature banana-to-banana cables, connection pins, stabilizer set, and dedicated carrying case

Compatibility & Integration The 16442B integrates with Keysight's primary device characterization platforms: B1500A Semiconductor Device Analyzer B2900A Series Precision Instruments 4155/4156 Parameter Analyzers E5270 Precision IV Analyzer

Safety interlock cables (16493J-001 for 1.5 m or 16493J-002 for 3.0 m) connect the fixture interlock terminal to the host instrument, ensuring coordinated high-voltage safety.

16442B Characteristics / Specifications

PARAMETER	VALUE
Model	16442B
Instrument Type	Semiconductor test fixture
Pin Count	48
Host Analyzers	B1500A, 4155C, 4156C class
Connection	force and sense Kelvin
Shielding	shielded fixture
Interlock	SMU interlock path
Manufacturer	HP Agilent Keysight
Use Case	packaged device IV/CV
Form Factor	benchtop shielded box
Literature	B1500A accessory catalog 16442B
Operating Temperature Class	0 to 55 C laboratory
Related Prior	16442A
Connectors	triaxial/coaxial to SMU
Socket	48-pin device under test
Guard	driven guard class of SMU fixtures
Leakage	low-leakage fixture class
Safety	interlock disables SMU when open
Cable	low-noise SMU cables
Calibration	open/short at fixture
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications
Operating temperature	Class: 0 to 55 C laboratory

16442B Specifications

PARAMETER	VALUE
Applications	IV and CV characterization of packaged semiconductors on B1500/4155/4156 analyzers.
Key Features	48-pin shielded fixture
Interlock for SMU safety	Works with B1500A and 4155C/4156C
Technical Specifications	Model: 16442B

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C laboratory
Operating Temperature	Class: 0 to 55 C laboratory
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Related Prior	16442A
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Guard	driven guard class of SMU fixtures
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Safety	interlock disables SMU when open
Cable	low-noise SMU cables
Calibration	open/short at fixture
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications Notes Identity, 48-pin count, and B1500/4155/4156 host list from Keysight 16442B test-fixture accessory catalogs. Maximum voltage/current follow the attached SMU and fixture interlock rating in the 16442B manual.

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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Documentation Type	OEM datasheet and catalog 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

Aumictech

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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.