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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT / HP

Keysight / Agilent / HP 10897C High Resolution Laser Axis Board

HP Agilent 10897C High Resolution Laser Axis Board The HP 10897C is a high-resolution laser axis board for HP/Agilent 5527/108xx laser interferometer positioning systems. It processes the measurement axis from the laser head/receiver optics. High-resolution optics configurations are cited to 0.3 nm ($\lambda/2048$) class resolution. Used in semiconductor and precision stage metrology. Laser interferometer axis electronics; precision stage position; semiconductor lithography/metrology upgrades of 10897-family boards. The HP 10897C is a high-resolution laser axis board for HP/Agilent 5527/108xx laser interferometer positioning systems. It processes the measurement axis from the laser head/receiver optics. High-resolution optics configurations are cited to 0.3 nm ($\lambda/2048$) class resolution. Used in semiconductor and precision stage metrology. Laser interferometer axis electronics; precision stage position; semiconductor lithography/metrology upgrades of 10897-family boards.

**MODEL****Keysight / Agilent /
HP 10897C****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****10897C****LISTING**<https://aumictechlabs.com/products/10897c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight/Agilent/HP 10897C High Resolution Laser Axis Board is a VMEbus-compliant measurement interface designed for precision positioning and metrology in advanced manufacturing and IC fabrication environments. This board delivers position data with 0.3 nm

resolution and processes a 36-bit position word in fractional wavelengths, enabling ultra-accurate motion control and positioning feedback. Technical Specifications Measurement Resolution: 0.3 nm (3 Angstroms) with compatible high-resolution plane mirror interferometers Position Word: 36-bit format in fractional wavelengths; any 32 of 35 bits selectable via 2's Complement logic with positive logic control Data Rate: >100 kHz over backplane; 10 MHz hardware position output data update rate with synchronization to slower clocks Sample Data Age: Approximately 290 ns or 790 ns before sample initiation (position register); approximately 1.2 μ s before next 10 MHz clock rising edge (hardware output line) Sample Delay: Position register readable 100 ns or 600 ns after hardware sample operation Power Requirements: 5 Vdc $\pm$ 0.25 V / -0.125 V at <3.5 A; +12 V $\pm$ 0.5 V at <0.1 A; -12 V $\pm$ 0.5 V at <0.025 A Cooling Requirements: 19 linear meters/minute (0–40°C); 76 linear meters/minute minimum (0–55°C) Key Features VMEbus Revision C.1 compliance with support for A16/D16, A24/D32, and D08(O) interrupt acknowledge cycles Real-time position data accessible via VMEbus and P2 connector (A and C rows) Programmable signal routing for reference and measurement signals from front panel, P2 connector, or multiaxis interconnect cable Proprietary interpolator optimized for high-resolution applications Low-noise design improves measurement repeatability Surface-mount construction for compact, reliable operation Typical Applications Precision IC fabrication metrology High-accuracy motion control systems Laser interferometer-based positioning feedback Advanced manufacturing process monitoring Compatibility & Integration Designed for integration into VMEbus systems and compatible laser interferometer measurement platforms requiring fractional-wavelength positioning accuracy.

Features & description

From manufacturer datasheet

Features

- High-resolution axis electronics (C revision)

10897C Characteristics / Specifications

PARAMETER	VALUE
Model	10897C
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	High Resolution Laser Axis Board
Family	10889/10897 laser measurement
Alias	10897C; HP 10897C
Function	interferometer measurement axis electronics
Resolution Class	0.3 nm ($\lambda/2048$) with high-resolution optics
Host	HP 5527A/B or 108xx laser system electronics cage
Laser Head	HP 5517/5519 class HeNe laser (system dependent)
Optics	linear/plane-mirror interferometer optics
Predecessor	10897B
Related 10895A	axis board family siblings
Form	plug-in axis PCB
Axes	one measurement axis per board
Output	position data to system bus/backplane
Use	displacement metrology notastandalone interferometer
Status	HP 10897C EOL
Wavelength	633 nm class HeNe system
Environment	laser metrology lab
NotALaser Head	electronics board not 5517
Not 5529A	later USB/PC interferometer family
Cooling	cage airflow
Firmware	C-revision axis firmware
Connectors	receiver/axis input per 10897C
Calibration	system wavelength compensation (air sensor) is system-level

PARAMETER	VALUE
Documentation	10897C / 5527 laser system manuals
Service	ESD-sensitive PCB Notes High-resolution laser axis board identity from HP 10897C product literature; 0.3 nm ($\lambda/2048$) class applies with high-resolution optics. Confirm laser head optics and compensation sensors in the same system. Do not invent maximum velocity.

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.

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