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Data Sheet
August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 55280A

HP Agilent Keysight 55280A Linear Measurement Kit The 55280A Linear Measurement Kit supplies the optics for linear displacement and velocity on a 5530 Laser Calibration System. OEM Keysight 55280A datasheet 5990-9311 and 55280A product pages list a 10766A linear interferometer, two 10767A linear retroreflectors, mounting hardware, andatransit case. Range is up to 40 m (130 ft) with linear optics and up to 80 m (260 ft) long-range class. Operating 0 to 40 C (32 to 104 F). Wavelength compensation: E1738A air sensor plus or minus 0.4 ppm; in vacuum plus or minus 0.1 ppm (plus or minus 0.02 ppm class). Optical resolution 1 nm (0.04 uin) with 10766A linear optics, 0.5 nm (0.02 uin) with 10706A/B plane-mirror optics, 0.25 nm (0.01 uin) with 10716A high-resolution plane-mirror optics (10716A aperture 12.7 mm vs 5519A 11 mm). The 55280A Linear Measurement Kit supplies the optics for linear displacement and velocity on a 5530 Laser Calibration System. OEM Keysight 55280A datasheet 5990-9311 and 55280A product pages list a 10766A linear interferometer, two 10767A linear retroreflectors, mounting hardware, andatransit case. Range is up to 40 m (130 ft) with linear optics and up to 80 m (260 ft) long-range class. Operating 0 to 40 C (32 to 104 F). Wavelength compensation: E1738A air sensor plus or minus 0.4 ppm; in vacuum plus or minus 0.1 ppm (plus or minus 0.02 ppm class). Optical resol

MODEL **Agilent / Keysight 55280A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **55280A**	LISTING **https://aumictechlabs.com/products/55280a-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 55280A is a linear measurement kit designed for high-precision metrology applications. It is a component of the Keysight 5530 Laser Calibration System and is used to measure linear distance (displacement) and velocity. The 55280A kit includes optical equipment, such as the Keysight 10766A Linear Interferometer and two Keysight 10767A Linear Retroreflectors, along with mounting hardware and a transit case. This system measures the change in distance between the interferometer and the retroreflector, enabling accurate calibration of positioning accuracy for numerically-controlled machine tools and coordinate measuring machines. It can also serve as a standard for calibrating length standards due to its high accuracy and resolution. Technical Specifications Measurement Range: Up to 40 meters (130 feet) with Linear Optics. Up to 80 meters (260 feet) with Long Range Option. Accuracy: Temperature range: 0 - 40ºC (32 - 104°F). With E1738A Air Sensor: ±0.4 ppm. In vacuum: ±0.1 ppm (±0.02 ppm if the 5519A/B laser head is calibrated to MIL-STD 45662A). Resolution: Linear optics (10766A): 1 nanometer (0.04 microinches). Plane mirror optics (10706A/B) requires 10724A Plane Mirror Reflector: 0.5 nanometer (0.02 microinches). High resolution plane mirror optics (10716A) requires 10724A Plane Mirror Reflector: 0.25 nanometer (0.01 microinches). Components Included in the 55280A Kit: Keysight 10766A Linear Interferometer. Two Keysight 10767A Linear Retroreflectors. Mounting hardware. Transit case. Laser Head Specifications (Related Components): The Agilent/Keysight 5519A/B Laser Head is a component of systems like the 5530 Laser Calibration System. It incorporates a helium-neon laser with a beam diameter of 6 mm (0.24 in). Wavelength accuracy: ±0.1 ppm (±0.02 ppm if calibrated to MIL-STD 45662A). Uses a two-frequency laser technique to minimize issues from beam intensity changes. Laser Medium: Helium-Neon. Wavelength: 632.991 nanometers. Maximum Radiant Power Output: 1 milliwatt (Class II Laser Product). System Compatibility and Integration: The 55280A Linear Measurement Kit is used in conjunction with the Keysight 5530 Laser Calibration System. It works with use with Agilent interferometer systems. The system measures the change in distance between the interferometer and the retroreflector. It is compatible with other Keysight laser calibration system components and optics kits, such as the 55281A Angular Optics Kit and 55282A Flatness Accessory Kit. Older Agilent systems like the 5528A Laser Measurement System are no longer sold by Keysight. However, compatible optics and kits for older systems may be available. Applications: Calibration of positioning accuracy of numerically-controlled machine tools. Calibration of coordinate measuring machines. De facto standard for calibrating length standards. Precision product manufacturing in industries such as integrated circuits, disk drives, and precision machining. Laser-based Dynamic Calibration Systems. Mechanical parts inspection and measurement. Mechanical vibration analysis. Semiconductor fabrication, inspection, and repair. Why Choose Aumictech for Agilent/Keysight 55280A? At Aumictech, we specialize in supplying high-end metrology equipment. Whether you need precise linear displacement measurements, accurate velocity data, or reliable calibration for your machine tools, our team ensures the Agilent/Keysight 55280A delivers maximum performance for your demanding applications.

55280A Characteristics / Specifications

PARAMETER	VALUE
Model	55280A
Instrument Type	Linear displacement and velocity optics kit
Host System	5530 Laser Calibration System
Interferometer	10766A linear interferometer
Retroreflectors	two 10767A linear retroreflectors
Linear Range	up to 40 m (130 ft) with linear optics
Long Range	up to 80 m (260 ft) long-range class
Operating Temperature	0 to 40 C (32 to 104 F)
Air Sensor Uncertainty	E1738A plus or minus 0.4 ppm
Vacuum Uncertainty	plus or minus 0.1 ppm (plus or minus 0.02 ppm class)
Linear Resolution	1 nm (0.04 uin) with 10766A
Plane Mirror Resolution	0.5 nm (0.02 uin) with 10706A/B
High Res Plane Mirror	0.25 nm (0.01 uin) with 10716A
Aperture Sixteen	10716A aperture 12.7 mm versus 5519A 11 mm
Literature	Keysight 5990-9311 55280A datasheet
Manufacturer	HP Agilent Keysight
Included Hardware	mounting hardware and transit case
Measurement	linear displacement and velocity
Thermal Drift	long-term tests over hours or days
Wavelength Class	633 nm HeNe laser head
Application Class	NC machine tool and CMM compensation
Documentation Type	OEM linear measurement kit datasheet
System Role	linear optics set for 5530
Use Case	positioning accuracy along an axis
Related Angular	55290A angular position measurement kit

55280A Specifications

PARAMETER	VALUE
HP Agilent Keysight 55280A Linear Measurement Kit	Overview
Key Features	10766A interferometer plus two 10767A retroreflectors
Technical Specifications	Model: 55280A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 40 C (32 to 104 F)
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Application Class	NC machine tool and CMM compensation
Documentation Type	OEM linear measurement kit datasheet
System Role	linear optics set for 5530
Use Case	positioning accuracy along an axis
Related Angular	55290A angular position measurement kit Notes From Keysight 55280A datasheet 5990-9311 and 55280A product pages (10766A/10767A contents, 40 m/80 m, 0 to 40 C, E1738A 0.4 ppm, 1/0.5/0.25 nm resolutions). Do not invent straightness or squareness figures; those are other 5528x kits.

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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Application Class	NC machine tool and CMM compensation
Documentation Type	OEM linear measurement kit datasheet
System Role	linear optics set for 5530
Use Case	positioning accuracy along an axis
Related Angular	55290A angular position measurement kit

Notes

From Keysight 55280A datasheet 5990-9311 and 55280A product pages (10766A/10767A contents, 40 m/80 m, 0 to 40 C, E1738A 0.4 ppm, 1/0.5/0.25 nm resolutions). Do not invent straightness or squareness figures; those are other 5528x kits.

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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