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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 10713B

HP Agilent Keysight 10713B One Inch Cube Corner The 10713B is the 1-inch bare cube-corner reflector used when mass is critical versus the housed 10703A. OEM 5964-6190E lists 10703A housed reflector 42 g (1.5 oz) paired with 10702A linear interferometer 232 g (8.2 oz) or 246 g with windows, and the bare cube-corner mass 11.4 g (0.4 oz) as 10713B. Family cube corners: 10713C 1/2-inch 1.4 g with 10704A/10705A, 10713D 1/4-inch 0.2 g. Linear optics in the 55280A kit use 10766A interferometer and 10767A retroreflectors for up to 40 m (130 ft), or 80 m (260 ft) long-range class. The 10713B is the 1-inch bare cube-corner reflector used when mass is critical versus the housed 10703A. OEM 5964-6190E lists 10703A housed reflector 42 g (1.5 oz) paired with 10702A linear interferometer 232 g (8.2 oz) or 246 g with windows, and the bare cube-corner mass 11.4 g (0.4 oz) as 10713B. Family cube corners: 10713C 1/2-inch 1.4 g with 10704A/10705A, 10713D 1/4-inch 0.2 g. Linear optics in the 55280A kit use 10766A interferometer and 10767A retroreflectors for up to 40 m (130 ft), or 80 m (260 ft) long-range class. Low-mass linear interferometer reflectors on stages where the 42 g 10703A housing is too heavy.



MODEL

**Agilent / Keysight
10713B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

10713B

LISTING

<https://aumictechlabs.com/products/10713b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 10713B is a He-Ne laser head component that generates the coherent beam for high-precision laser interferometer positioning systems. Operating at 633 nm with exceptional

wavelength stability, this bare cube corner unit delivers measurement capability up to 40 meters across multiple axes, making it the optical foundation for precision motion control in demanding manufacturing environments.

Technical Specifications

Laser Type: He-Ne laser source

Wavelength: 633 nm (nominal)

Wavelength Accuracy: ± 0.1 ppm (vacuum, 3 sigma, lifetime)

Wavelength Stability: ± 0.002 ppm (1 hour, typical, vacuum); ± 0.02 ppm (lifetime, vacuum)

Measurement Range: Up to 40 meters (130 feet) for sum of all axes

Beam Diameter: 6 mm standard

Heat Dissipation: 23 W operating; 35 W warm-up

MTBF: > 50,000 hours typical

Magnetic Field Strength: ≤ 5.25 milliGauss at 4.6 m (15 ft) distance from packaged laser head surface (non-operating)

Weight: 11.4 g (0.4 oz) bare cube corner

Safety Classification: Class II laser per 21 CFR 1040.10 and 1040.11

Key Features

Bare cube corner design - no external housing required

Vacuum-referenced wavelength stability ensures long-term measurement integrity

Sub-ppm accuracy maintained across product lifetime

Compact form factor optimized for integration into interferometer optical trains

Minimal magnetic field emission suitable for sensitive semiconductor and display manufacturing environments

Typical Applications

Semiconductor lithography alignment and positioning

Flat panel display manufacturing

High-volume production environments demanding sub-micron motion control and measurement

Compatibility & Integration

The 10713B integrates with Keysight's laser interferometer ecosystem, including 5517 series laser heads, compatible optics for beam direction and measurement, and supporting electronics (backplane, receivers) required to form complete interferometer systems.

Back-clearance requirement: 10.16 cm for cabling.

10713B Characteristics / Specifications

PARAMETER	VALUE
Model	10713B
Instrument Type	One-inch bare cube-corner reflector
Mass	11.4 g (0.4 oz) bare cube corner
Housed Sibling	10703A 42 g (1.5 oz)
Paired Interferometer	10702A linear interferometer 232 g (8.2 oz)
Interferometer With Windows	10702A with windows 246 g (8.7 oz)
Half Inch Sibling	10713C 1.4 g (0.05 oz)
Quarter Inch Sibling	10713D 0.2 g (0.007 oz)
Beam Spacing	12.7 mm (0.50 in) on 10702A family
Linear Range Class	up to 40 m (130 ft) with linear optics
Long Range Class	up to 80 m (260 ft) long-range class
Kit Interferometer	10766A in 55280A linear measurement kit
Kit Retroreflector	10767A linear retroreflectors (two in 55280A)
Wavelength Class	633 nm HeNe
Literature	Keysight 5964-6190E
Manufacturer	HP Agilent Keysight
Form Factor	bare 1-inch cube corner
System Role	low-mass measurement reflector
Application Class	laser interferometer linear axis
Documentation Type	OEM laser optics datasheet
Mount Class	user or 10710B family mounts
Use Case	mass-critical stage metrology
Related Angular	10770A angular interferometer / 10771A angular retroreflector
Related Plane Mirror	10706B high-stability plane-mirror interferometer
Resolution Class	nanometer with 32x/256x electronics on the laser head

10713B Specifications

PARAMETER	VALUE
HP Agilent Keysight 10713B One Inch Cube Corner	Overview
Applications	Low-mass linear interferometer reflectors on stages where the 42 g 10703A housing is too heavy.
Key Features	1-inch bare cube corner 11.4 g
Pairs with 10702A linear interferometer	Housed sibling 10703A is 42 g
Family 10713C/10713D smaller corners	633 nm HeNe interferometer optic
Technical Specifications	Model: 10713B

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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Related Angular	10770A angular interferometer / 10771A angular retroreflector
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Resolution Class	nanometer with 32x/256x electronics on the laser head

Notes

From Keysight 5964-6190E (10713B 11.4 g bare 1-inch corner; 10703A 42 g; 10702A 232/246 g; 10713C/D masses; 40 m / 80 m linear-range class). Wavefront error of the bare corner is on the optic inspection sheet, not invented here.

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 ·
30-day returns
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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.