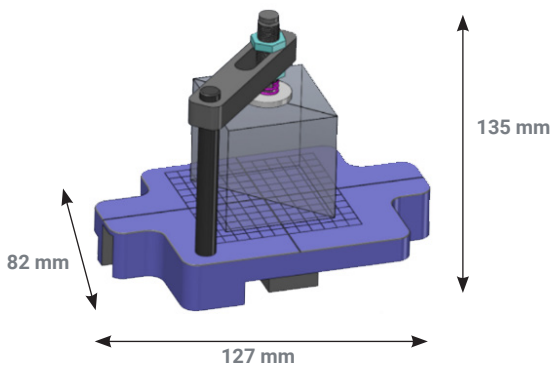




Cube Beam Splitter Holder for the Cary 7000 UMS/UMA



Increase your sampling capacity

The Cube Beam Splitter Holder is designed to fit inside a Cary 7000 universal measurement spectrophotometer (UMS) or a Cary universal measurement accessory (UMA).

Cube beam splitters are optical components found in high-end products ranging from micro positioning equipment to fiber optic based telecommunication systems. The Cube Beam Splitter Holder allows the measurement of the optical properties of a cube beam splitter in all the critical angles and directions (including reverse) without having to reposition the sample or interact with the accessory. The holder allows reflection or transmission measurements on cubes ranging in size from 1 cm³ (0.4 in³) up to 6 cm³ (2.3 in³). The simple top clamp mount and gridlines on the sample holder base plate allow for easy changing and repositioning of cube beam splitters. The diagonal where the two prisms are bonded can be placed at the central focal point of the light beam.

Safely and securely mount beam splitters

- Cube Beam Splitter holder allows samples sized from 1 cm³ (0.4 in³) up to 6 cm³ (2.3 in³)
- Top clamp sample mount and gridlines on the holder base plate allow precise adjustment of the sample position
- Allows operators to mount other sample holder such as cell holder or to mount goal posts

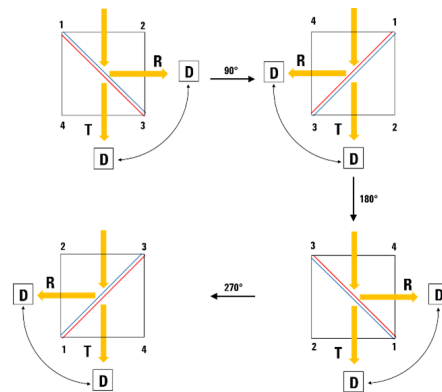


Figure 1. Possible incident light, sample and detector geometries when using the holder. At each sample position the detector can collect data at any angle around the sample (e.g. in reflectance and transmittance position). The sample can be rotated along its center axis and a new spectrum can be recorded.

Transmittance and reflectance properties can be measured without moving the sample or the incident light—the light pathway is equal in both measurements. Absorptance (or total losses) can be calculated from $A = 1 - T - R$.

Other sample holders can be attached to the Cube Beam Splitter holder, using the screw holes in its base plate. The Cary standard cell holder, mounted in this way allows you to perform transmission measurements of solutions or suspensions with the detector placed at 180° to the light source. Scattering measurements are also possible by moving the detector to 90° from the incoming light.

Moreover, the holder provides holes to mount detector goal posts such as depolarizers or detector apertures directly in front of or behind solid samples



Guidelines	
Mounting Type	Top clamp, standard cuvettes
Largest Sample dimensions	2.3 in ³ (6 cm ³)
Smallest Sample Dimension	0.4 in ³ (1 cm ³)
Max Weight of Sample	Life tested to 6 kg Guaranteed to 3 kg
Mounting Mechanism	Spring-loaded stamp
Material	Anodized aluminum, stainless steel, plastic

Ordering information

Description	Part Number
Cube Beam Splitter Holder	G6874A#200

For information on other specialized sample holders refer to the following publications:

Data Sheet	Part Number
Standard Solid Sample Holder	5994-3120EN
Edge Mount Sample Holder	5994-3121EN
Round Sample Holder	5994-3119EN

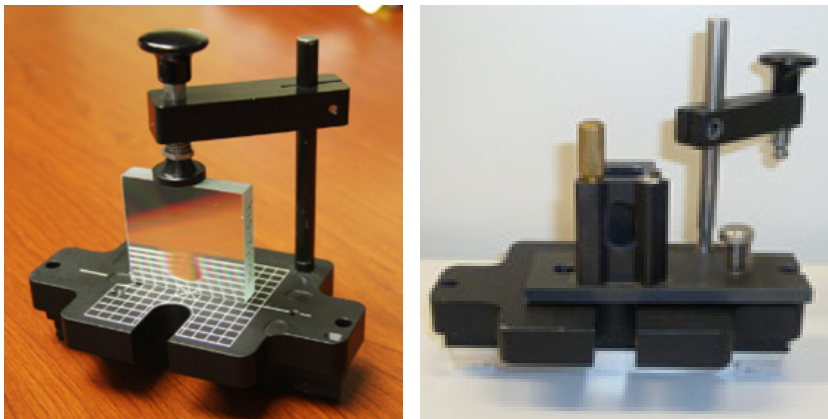


Figure 3. A diffraction grating mounted on the Cube Beam Sample Holder (left) and the same sample holder with a cuvette holder mounted in it (right).

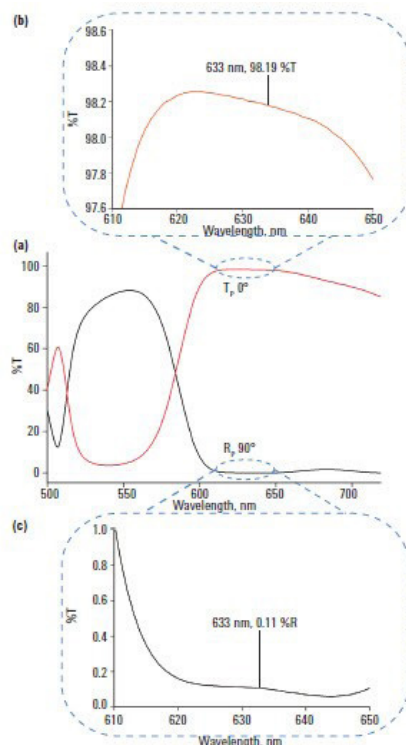


Figure 4. (a) Transmission and reflection spectra for p-polarized light measured on a CBS sample. (b) Transmission spectrum zoomed in around 633 nm. (c) Reflection spectrum zoomed in around 633 nm.

www.agilent.com/chem/caryms

DE44307.8764467593

This information is subject to change without notice.

© Agilent Technologies, Inc. 2021
Published in the USA, May 5, 2021
5994-3122EN