

Deuterium & Halogen Light Source (180-2500 nm)

ATG1020

Features

- All range output: 180-2500 nm;
- Including DUV, Visible, infrared;
- Excellent performance, P-P stability <0.005%
- Eliminates 655nm spike;
- Optimisation of spectral intensity is optional, resulting in a flatter output spectrum;
- Built-in aperture for easy testing of dark current;
- Long life
 - Deuterium: 3000 hours;
 - Halogen: 5000 hours;
- Fibre or free space output: ATG1020 supports free space or fibre output (SMA905 interface), which is convenient to connect with spectrometer, optical fibre and other measurement accessories;
- Fibers: Recommend the UV-resistant quartz fibre from Optosky

Applications

- UV gas analysis
- Lab for scientific research
- Multi-parameter water quality analysis
- Instruments of environmental protection

Model	Features
ATG1001-DL	Highly stable deuterium lamp UV source, 20W
ATG1001-HL	Highly stable halogen light source, 20W

* The ATG1001 and ATG1020 have identical external dimensions.

Description

ATG1020 deuterium-halogen combination light source of Optosky adopts deuterium bulb of Hamamatsu Corporation of Japan and imported high stability halogen light source, and after specific design of coupling optical path, two light sources coaxial output, which can produce stable output spectrum of 180-2500 nm. Its peak-to-peak stability is less than 0.005%, and the drift is only $\pm 0.5\%$ /h.

Tungsten halogen lamp adopts the long-life, high-stability bulb from OSRAM, with service life of up to 5,000 hours; the self-designed high-reliability constant current driving current is adopted.

ATG1020 has the features of long life, low light decay, high output power, etc. It can be widely used in traditional desktop spectroscopic instruments and field portable miniature spectroscopic instruments.

ATG1020 deuterium lamp source can be retrofitted with a cuvette holder for direct transmission absorption of cuvettes or filters.

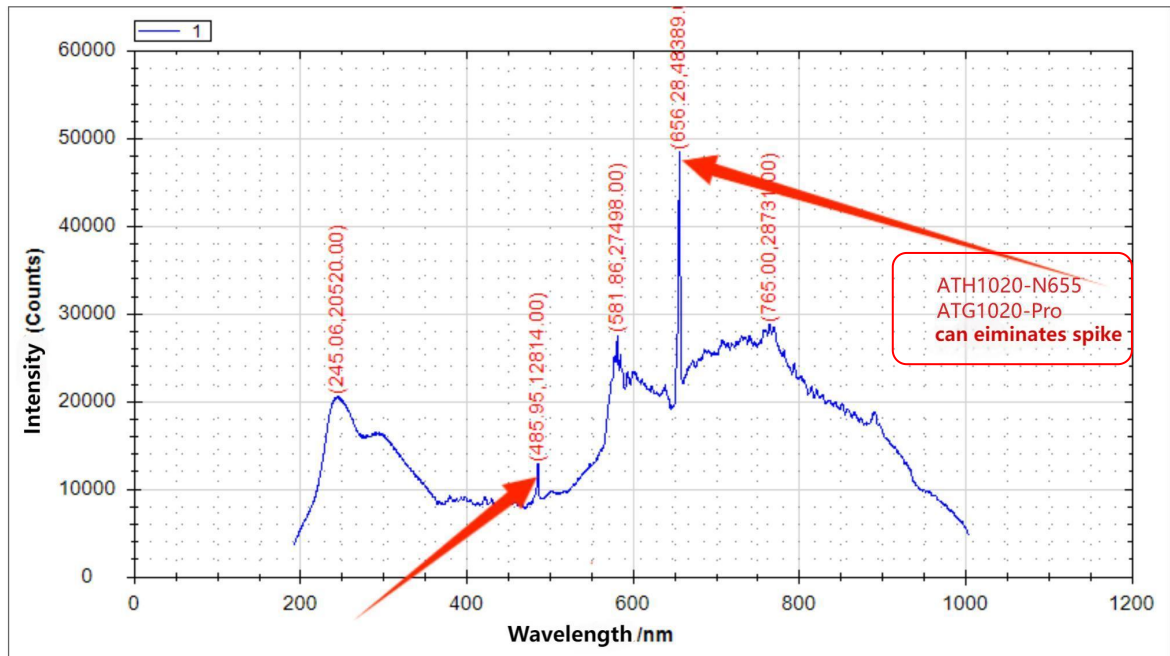
Model	Features
ATG1020-H	Deuterium-halogen combination lamps, cost-effective broadband light sources
ATG1020-N655	Deuterium-halogen combination lamp, broad spectrum, eliminates 655nm spike
ATG1020-Pro	Adjustable halogen lamp power for easy adjustment of UV relative intensity; Flatter spectral intensity, more suitable for applications such as reflectance and transmission spectroscopy; Built-in aperture for easy testing of dark current; Elimination of the 655nm spike



1. Parameters

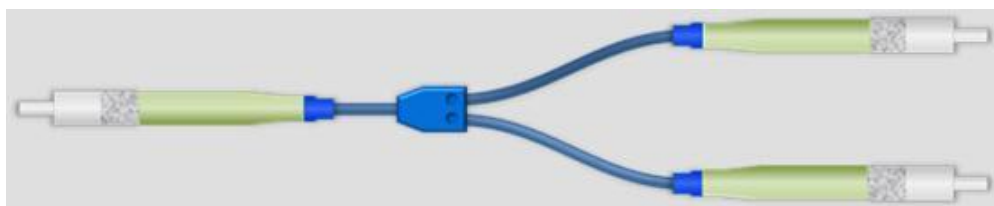
	ATG1020H	ATG1020-N655	ATG1020-Pro	ATG1001-DL	ATG1001-HL
Spectral range	185-2500 nm (Deuterium lamps with deep ultraviolet)			185-900nm	350-2500nm
P-P stability	<0.005% at 250 nm				
Drift	+/-0.5% per hour at 250 nm				
	40 minutes				
Power of Deuterium	20 W				/
Life	3000 hours				/
Power of Halogen	5 W			/	5W、20W
Life	5000 hours				5000 hours
Adjustable power of tungsten halogen lamp	×	×	√	×	×
Waveform-optimised	×	×	√	×	×
Built-in aperture	×	×	√	×	×
Warm-up time	15 minutes				
Temperature(working)	-10 °C - 40 °C				
Humidity	5-95% non-condensing				
Output	SMA905 standard fibre interface				
Voltage & power	85-264 V, 50/60 Hz; 60±40 W				
Size(H)	80 mm x 175 mm x 140 mm				
Weight	3±0.5 kg (Exclude power cord)				

2. Spectrum



Pic.1 Measured spectrum of ATG1020H

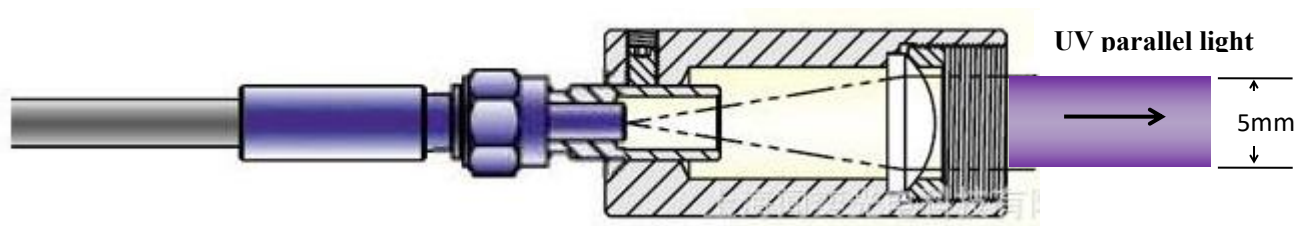
3. Other Accessories



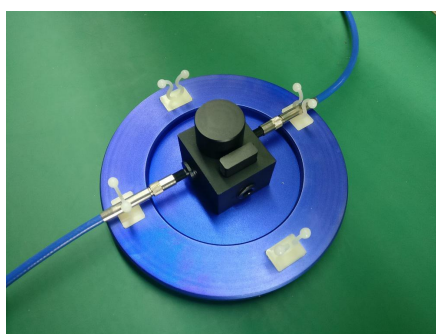
Pic. 2 Customized 1.5 m long 2-to-1 anti-UV fiber



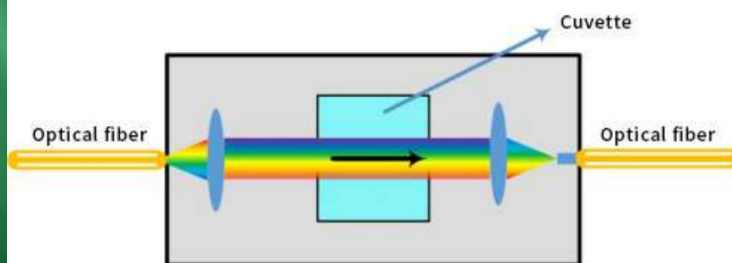
Pic. 3 Collimator for fiber



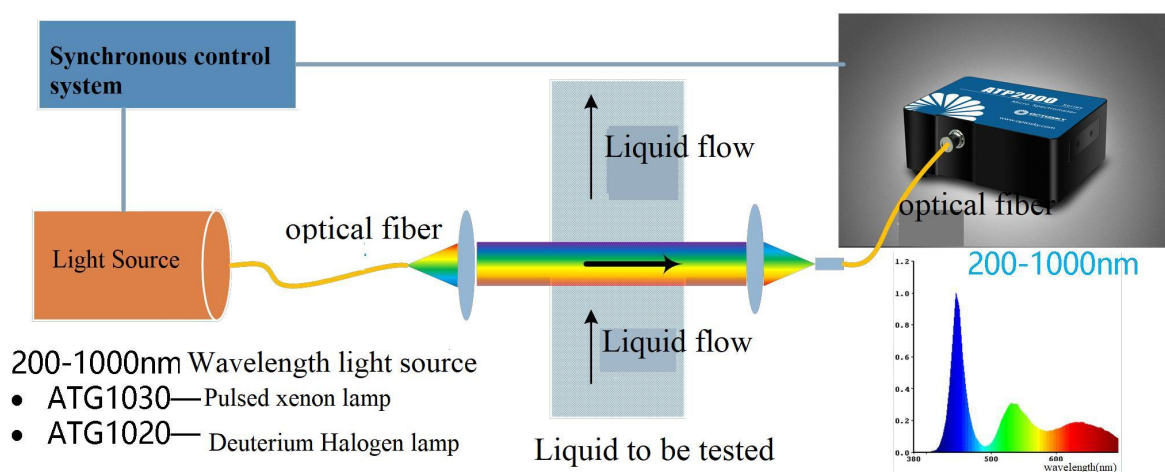
Pic. 4 Collimator for fiber



Pic. 5 Cuvette holder



Pic. 6 ATP0080 sample cell



Pic. 7 Transmittance test system using optical fibre, light source and spectrometer