BTS-Solar

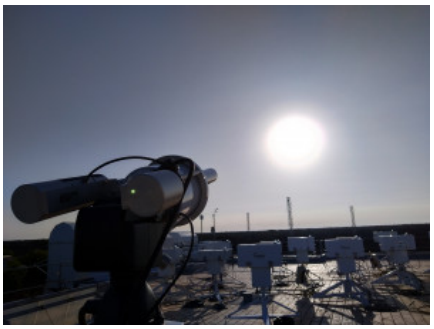
https://www.gigahertz-optik.com/en-us/product/bts-solar/

Product tags: UV , Weatherproof

Description

Accuracy shown in intercomparison measurement campaigns

The BTS-Solar has been compared to Brewer and Dobson in several scientific publications to verify and show the measurement capabilities. These showed an excellent agreement, see, long term intercomparion at DWD (Deutscher Wetterdienst) and International Intercomparion at Izaña Atmospheric Observatory/Teneriffa .



BTS-Solar at Brewer intercomparision in Mazagon/Huelva

BTS-Solar

Measurement system for direct spectral irradiance measurements of solar radiation. The system consistent of a BTS2048-UV-S-WP (Spectroradiometer with tube), SUT-1711 (Suntracker), SUT-Z01 (Sunfinder), SolarRunner (Software) and connection cables. Evaluations like TOC (Total Ozone Column) are supported by the measurement system.

SUT-1711 equipped with BTS2048-UV-S-WP and tube for direct sun measurement

Compact sun tracker design

The SUT-1711 is a compact sun tracker for worldwide use under all weather conditions. It is equipped with a tripod stand and a spirit level for adjustment. Two variants with low (BTS-Solar-1901) and increased (BTS-Solar-1902) mounting heights of the sun tracker are available.

Payload designed for single devices

The accurate motion system does not require maintenance. The maximum payload depends on the resulting leverage and is typically limited to 5.5 kg. The unit is perfectly suited for the BTS2048-xx-WP series.

Fine sun tracking accessory

For extended accuracy sun tracking a direct sun sensor with integrated GPS receiver and four quadrant diode can be used as an accessory (SUT-Z01). This system automatically configures location and provides precise time information. This sensor is usually connected with the measurement device and communicates via the application software with the sun tracker.

Software controlled

The SolarRunner software is the application software for the full measurement system.

In addition the SUT-1711 can be controlled by a software development kit (SDK) or by the application software of the used Gigahertz-Optik GmbH

measurement device (e.g. BTS2048-xx-WP series). The software automatically controls the SUT-1711 in order to track the sun position depending on the GPS position and time. For even more precise control and automatic setup the fine sun tracking accessory SUT-Z01 is recommended.

Global spectral irradiance

In addition we have achieved very good results for the BTS2048-UV-S-WP in a scientific intercomparison with double monochromator. A scientific publication by INTA showed a very good agreement in a three comparison campaigns of global UV spectral irradiance measurements: **Comparison of global UV spectral irradiance measurements between a BTS CCD-array and a Brewer spectroradiometer.**

Specifications

General	
Short description	Direct spectral irradiance measurement system for e.g. TOC measurements
Main features	accurate TOC determination, compact design, price attractive
Measurement range	depending on quantity, see specific data sheet
Typical applications	Sun tracking with the BTS2048 WP series for direct solar spectral irradiance measurements and TOC determination
Calibration	a calibration of the BTS2048-UV-S-WP spectroradiometer is needed
Product	
General	Specifications spectroradiometer see: BTS2048-UV-S-WP Suntracker: • Pan resolution of 0.006° • Tilt resolution of 0.003° • IP67 • temperature range:(-30 to 70) °C • Load: 5.5 kg • Solar finder with GPS for fully automatic tracking

Configurable with

Product Name	Product Image	Description	Go to product
SUT-1711		Sun tracker for use with e.g. BTS2048-xx-WP series meter for direct solar irradiance measurement.	https://www.gigahertz-optik.com/en-us/product/sut-1711/

Purchasing information

Article-Nr	Modell	Description
Product		
15310546	BTS-Solar-1901	Full system consistent of BTS2048-UV-S-WP (Spectroradiometer with tube), SUT-1711 (Suntracker), SUT-Z01 (Sunfinder), SolarRunner (Software) and connection cables
15315652	BTS-Solar-1904	Full system consistent of BTS2048-UV-S-WP (Spectroradiometer with tube), SUT-1711 (Suntracker), SUT-Z01 (Sunfinder), SolarRunner (Software) and connection cables. Includes a stand with increased base mounting height (100 cm) of sun tracker.
Components		
15309077	SUT-1711	Sun tracker
15309861	SUT-Z01	Fine sun tracking unit (4 quadrant diode with GPS)
15307929	BTS2048-XX-WP-Z02	tube for the measurement of the direct solar irradiance
15309878	BTS2048-XX-WP-Z11	adapter for a BTS2048-XX-WP
15310548	SolarRunner	Software for BTS-Solar system

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- Repairs & Updates
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