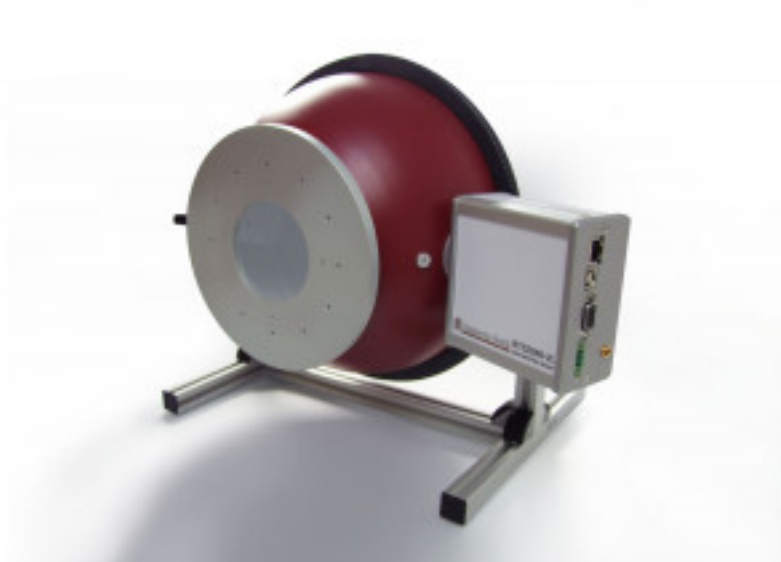


# ISD-25-BTS2048-VL

<https://www.gigahertz-optik.com/en-us/product/isd-25-bts2048-vl/>

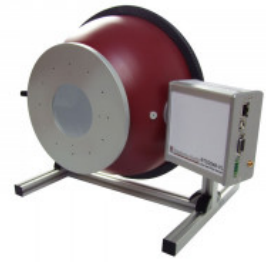
**Product tags:** VIS , NIR



## Description

### The BTS2048-VL light meter

The high-quality [BTS2048-VL](#) CCD based spectroradiometer is internationally recognized as a high-end product. It is one of the most compact spectroradiometers on the market which enables direct system integration in many applications without the need for expensive, and potentially measurement degrading, light guides. Among its characteristic features is its diffusor window with cosine corrected field of view for the measurement of spectral irradiance and spectral illuminance. This also permits direct mounting onto integrating spheres (e.g. the ISD-25) for measurement of luminous flux. More detailed information about the [BTS2048-VL](#) can be found in the respective data sheets. This unit is also available in the [BTS2048-VL-TEC](#) version with thermoelectric cooling



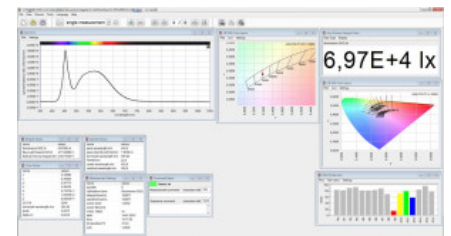
*ISD-25\_BTS2048\_VL:*



*BTS2048-VL high end CCD spectroradiometer for cw and flash measurements.*

### Enhancement of the BTS2048-VL with the ISD-25-V01 integrating sphere

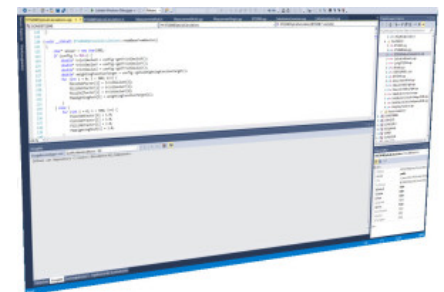
The ISD-25-V01 can be combined with the BTS2048-VL for the measurement of luminous flux, spectrum, color, and color rendering index of single LEDs, LED matrices, and LED lamps with diameters of up to 76 mm. It can also be used to measure special light sources such as endoscopes, light guide cold sources, etc. The lamp is positioned at the 76.2 mm (3 inch) diameter measurement port during the measurement for which a large, stable mounting plate for fixing of brackets and test sockets is incorporated in the ISD-25-V01. The combination of the BTS2048-VL and the ISD-25-V01 meets the requirements of CIE 127 for measurement of the luminous flux of directional (2pi) LEDs. These include the spectral resolution, dynamic range, and stability of the spectroradiometer as well as the ideal sphere coating, 25 cm diameter, auxiliary lamp, coupling of measurement devices using the diffusor window, and a baffle. A temperature sensor and a diffusor window are also included.



*S-BTS2048 User software interface*

### Measurement of the spectral transmission of light guides

Lateral emitting light guides are now deployed in daytime running lights, tail lights and brake lights in the automotive industry. Gigahertz-Optik's [TFCT25](#) measurement system can be used to measure the different optical transmission parameters, including light guide 'yellowing' and the LED lamps. The system is based on a combination of the ISD-25 and BTS2048-VL.



*S-SDK-BTS2048 Software development kit for device integration in customer software*

### Calibration

One essential quality feature of photometric devices is their precise and traceable calibration. The ISD-25-V01 with the BTS2048-VL has been calibrated at Gigahertz-Optik's DAkkS-accredited (D-K-15047-01-00)

calibration laboratory for the *spectral responsivity* and *spectral irradiance* according to ISO/IEC 17025. The calibration is performed with a [BN-LHSF-2P-20](#) calibration lamp that has 2pi radiation characteristics in the integrating sphere. Every device is delivered with its respective calibration certificate.



## Specifications


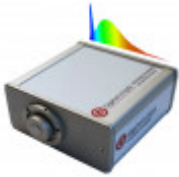
General	
Short description	CIE 127-conform spectroradiometer for measurement of the luminous flux, spectrum, color, and color rendering index of spot lamps with diameters of up to 76.2 mm
Main features	Integrating sphere with a 25 cm diameter and a 76.2 mm measurement port. Stable mounting plate for attachment of brackets and test sockets. High-quality CCD sensor spectroradiometer <a href="#">BTS2048-VL</a> .
Measurement range	Luminous flux: Integral 0.05 mlm to 141 klm.
	Spectral for typical white LEDs: 5.5 mlm to 43000 klm
	Spectral radiant flux: 8E-7 W/nm to 2E3 W/nm
	Spectral range: 350 nm to 1050 nm
Typical applications	Inspection of incoming products (single LEDs), in-line quality assurance of LED matrices, LED spot lamps, design
Calibration	Factory calibration. Traceable to international standards

## Downloads

Type	Description	File-Type	Download
BTS2048-Series Brochure	Not Just Another Spectrometer	pdf	<a href="https://www.gigahertz-optik.com/assets/BTS2048_broschuere_DI_NA4_hoch_V2_2022.pdf">https://www.gigahertz-optik.com/assets/BTS2048_broschuere_DI_NA4_hoch_V2_2022.pdf</a>

## Configurable with

Product Name	Product Image	Description	Go to product
BTS2048-VL		Versatile superb Speed and high Quality LED Spectroradiometer	<a href="https://www.gigahertz-optik.com/en-us/product/bts2048-vl/">https://www.gigahertz-optik.com/en-us/product/bts2048-vl/</a>
BTS2048-VL-TEC		Versatile Temperature Controlled High Speed and High Quality LED Spectroradiometer	<a href="https://www.gigahertz-optik.com/en-us/product/bts2048-vl-tec/">https://www.gigahertz-optik.com/en-us/product/bts2048-vl-tec/</a>

Product Name	Product Image	Description	Go to product
BTS2048-IR		Compact IR Spectroradiometer Fulfilling all the Requirements of a High-End Array Spectroradiometer	<a href="https://www.gigahertz-optik.com/en-us/product/bts2048-ir/">https://www.gigahertz-optik.com/en-us/product/bts2048-ir/</a>
BTS2048 Series		Compact spectroradiometers with excellent optical performance and BiTec technology for precise measurements for lab and field use.	<a href="https://www.gigahertz-optik.com/en-us/product/bts2048-series/">https://www.gigahertz-optik.com/en-us/product/bts2048-series/</a>

## Purchasing information

Article-Nr	Modell	Description
<b>Product</b>		
15306337	ISD-25-V01	Integrating sphere with 25 cm (10 inch) diameter. Measurement port with 76.2 mm (3 inch) port and havey load mounting plate. UMPF-1.0-HL detector port with baffle. Bench-top stand.
15298281	BTS2048-VL	Measuring device, hard cover box, users guide, Software S-BTS2048 calibration certificate
15298687	BTS2048-VL-TEC	Measuring device, hard cover box, users guide, software S-BTS2048, calibration certificate.
<b>Calibration</b>		
15300771	K-BTS2048VL-Phi2-S-V01	Calibration of the spectral radiant flux in W/nm from 350 nm to 1050 nm and of the luminous flux in lm of the BTS2048-VL with optional integrating sphere. Use of a calibration standard with 2Pi light distribution. Calibration certificate.

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- After-Sales Support
- Calibrations & Re-Calibrations ([ISO/IEC 17025 Calibration Services](#), [factory calibration](#), [Calibration of Third-Party Products](#))
- Repairs & Updates
- OEM & Feasibility Consulting of Customized Solutions

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