



Certification mark incl. percentage of Blue Light Ratio

July 29, 2020

## TÜV SÜD Japan launched Certification Service for Blue Light Ratio

Tokyo, Japan – TÜV SÜD Japan, local subsidiary of TÜV SÜD, a globally acclaimed German safety and quality expert, launched certification service for Blue Light Ratio in July 2020. This service provides a certification mark including the percentage of the Blue Light Ratio for PC, televisions, smartphones, and other devices that have been tested according to international standards.

There has been a remarkable shift from paper media to displays, and people are becoming increasingly concerned about blue light. Blue light is said to affect eyestrain, and many companies are proposing measures for the light emitting side (e.g., attaching filters and low-blue light mode to devices) and the light receiving side (e.g., blue light-cutting glasses). However, the abundance of various anti-blue light products leads to difficulties for consumers to distinguish good products.

To address this issue, TÜV SÜD Japan has launched a service to test and certify the Blue Light Ratio\* of products using LED backlight, LCD displays or LED displays. This service, which was launched in September 2007 at a laboratory in TÜV SÜD Taiwan, provides an objective assessment of product safety based on multiple international IEC/EN standards.

The main feature of this service is the certification mark showing the percentage of Blue Light Ratio (see "Certification Mark Features" below). The minimum requirement of Blue Light Ratio of 25 % or less, and the ratio is detailed in 5 % increments (10 % / 15 % / 20 % / 25 %). This allows equipment manufacturers to specifically indicate the blue light percentage of their products and allows consumers to identify it. TÜV SÜD Japan will continue to provide trust along with services that meet the needs of the market.

### \*About Blue Light Ratio:

Blue Light Ratio is a 'relative concept' in evaluating the blue light content of a product. Since the Blue Light Ratio of sunlight is around 25 % while the and Blue Light Ratio of general white light LEDs is around 35 %, the Blue Light Ratio in the low blue light mode(s) of displays or low blue light products is

expected to be lower than the blue light ratio of sunlight. Thus a blue light ratio  $\leq 25\%$  is the minimum requirement. The grating of blue light ratio will be based on the test result.

Blue Light Ratio (%) = Blue light irradiance (400 to 500 nm) / Total irradiance (300 to 700nm) x 100%

Service Name	Certification Service for Blue Light Ratio
Our services	<p>It is a certification service based on international IEC/EN standards. Based on the following four criteria, we test the Blue Light Ratio and provide a certification mark. As an option, TÜV SÜD can also conduct a flicker measurement test and include the information on the certification mark.</p> <ol style="list-style-type: none"> <li>1. <b>Product safety:</b> The safety requirements based on international standards such as IEC/EN or other national or regional requirements (e.g. IEC/EN 60950-1, IEC/EN 62368-1)</li> <li>2. <b>Photobiological safety:</b> Requirements of the exclusion groups defined in EN 62471</li> <li>3. <b>Non-inclusion of UV light:</b> Not including ultraviolet light and meets the requirements of EN 62471</li> <li>4. <b>Evaluation method:</b> Evaluation based on Display Measurement System</li> </ol>
Certification mark features	<div data-bbox="512 882 1018 1120" style="text-align: center;"> </div> <ul style="list-style-type: none"> <li>• TÜV SÜD Octagon, well known as the international certification mark</li> <li>• Showing Blue Light Ratio in 10 % / 15 % / 20 % / 25%</li> </ul>
Objective	<ul style="list-style-type: none"> <li>• Manufacturers and sellers of products using LED backlights LCD displays and LED displays, other devices or audio-visual equipments.</li> <li>• Product examples: TV, mobile phone, PC, monitor</li> </ul>
Contact	<p><a href="https://www.tuvsud.com/ja-jp/contact-us">https://www.tuvsud.com/ja-jp/contact-us</a></p> <p>Please select 'Electrical and electronic products' for product category and 'Product safety testing and certification' for service category.</p>

Click here for more information: <https://www.tuv-sud.jp/jp-jp/industry/additive-manufacturing>

<https://www.tuvsud.com/ja-jp/services/product-certification/ps-cert/certification-mark-for-blue-light-ratio>

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Founded in 1866 as a steam boiler inspection association, the TÜV SÜD Group has evolved into a global enterprise. More than 25,000 employees work at over 1.000 locations in about 50 countries to continually improve technology, systems and expertise. They contribute significantly to making technical innovations such as Industry 4.0, autonomous driving and renewable energy safe and reliable. [www.tuv-sud.jp](http://www.tuv-sud.jp)