Leader

PRESS RELEASE

January 17th, 2023
Leader Electronics Corporation.
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Yokohama
(Code：6867、Standard Market)

Always thank you for your continued support to us.

■ Product name: MTF Measurement Software SFR-Fit
■ Announcement date: January 17th, 2023 (Tuesday)

Leader Introduces SFR-Fit Automated Measurement Solution for Vehicle Cameras

Leader Electronics announces a new addition to its range of test and measurement products. SFR-Fit is an automated measurement solution designed for evaluating the modulation transfer function of cameras in applications such as motor transport, medicine and security.

Using an electronic display instead of a printed test chart, SFR-Fit allows MTF to be measured quickly and repeatably. Regions of interest as small as 30 x 30 pixels can be characterized accurately. Test images can be displayed on up to nine screens simultaneously for use when testing wide-angle cameras.

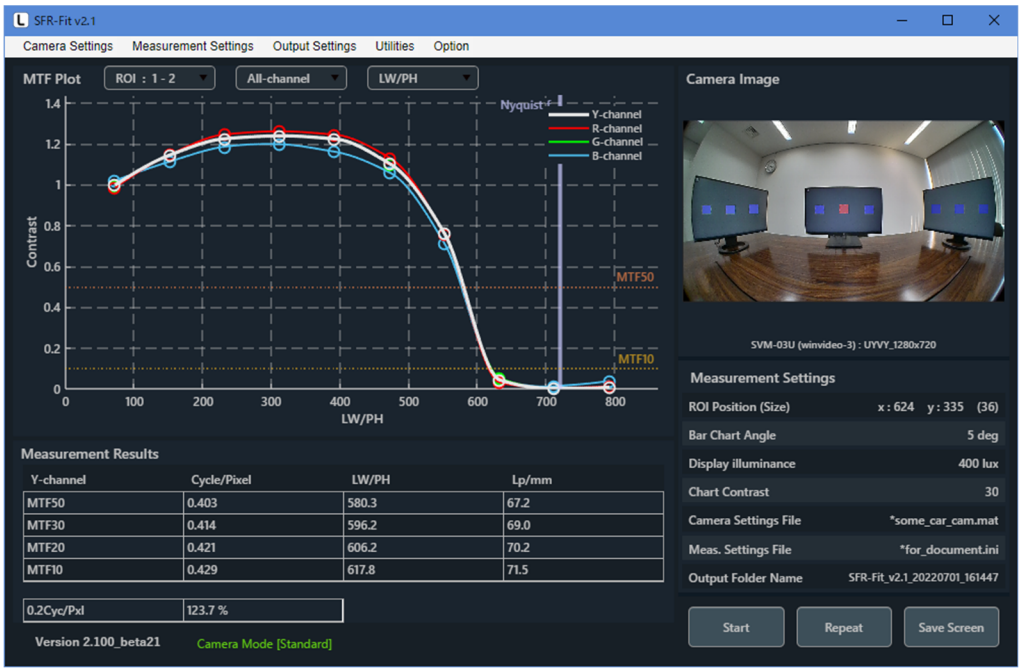
Until now, the most commonly used ways of measuring MTF have been the slanted edge method based on ISO 12233 and the sine wave contrast method using a star chart. SFR-Fit employs a unique algorithm combining the sinusoidal contrast and least-squares methods. This allows the fundamental component to be extracted and measured even if the captured image contains noise or harmonic components caused by image processing.

The process from image distortion analysis to measurement is performed automatically. The test pattern is switched for each spatial frequency so the region of interest is miniaturized, allowing partial MTF to be measured. An operator can set measurement points such as the image centre and the image height arbitrarily. The measurement area can be set simply by clicking and dragging with a mouse or entering numerical values.

Leader's SFR-Fit software runs on a standard enterprise PC with the monitor used as a test chart. After connecting the camera to be inspected and adjusting the software settings, the operator presses the start button and the MTF measurement results are then displayed. MTF plot data and MTF values can be saved as a CSV file. Images and test patterns can also be saved during measurement.

Measurement results can be viewed for each luminance and R/G/B chroma component channel. Components can be displayed individually or simultaneously. Clicking on the graph display shows the measured MTF value at the selected point. Multiple points can be checked instantaneously. It is possible to display sampling waveforms for each spatial frequency, brightness, and chroma component channel of the generated bar chart.

SFR-Fit was introduced to the US automotive market on the Leader Instruments Corporation stand at the January 5th through 8th Consumer Electronics Show in Las Vegas.



SFR-Fit main display

[Product introduction] https://www.leader.co.jp/en/products/other/fs3170/

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