



**AUTOMATIC 3D DISPARITY MEASUREMENT**



## 3D ASSIST BOX

This instrument is designed for use in evaluating the stereopsis effect at locations where 3D works are created or where products that use 3D are manufactured. This instrument can be used to evaluate items such as whether a video is easy to watch and whether the video is safe to be viewed by humans.

### FEATURES

#### • EIA 2U rack size

A high-performance industrial PC with Windows 7 has been housed in a case that can be mounted in 2U rack space of an EIA 19-inch rack.

#### • Support for various input formats

The LT 7030A supports HD-SDI dual link and single link (Side by Side (Half) as well as Top and Bottom) as well as HDMI (Side by Side (Half), Top and Bottom, Line by Line, and Frame Packing) input signals, which enables it to measure a variety of 3D signals.

#### • Automatic 3D disparity measurement \*1

·The video for the left eye and the video for the right eye that are applied to the SDI input connectors or the HDMI input connector are displayed in the upper left and upper right of the measurement screen. A depth image, which is a combination of the left and right video and which uses shading to indicate the depth of the disparity, is displayed in the middle of the screen. In place of the depth image, a convergence image, which indicates the difference between the left and right videos, or an overlay image can be displayed.

·The LT 7030A performs a disparity analysis on the left and right video, and then displays a disparity histogram with the frequency of disparity occurrence on the vertical axis and the number of near points and the number of far points on the horizontal axis. The histogram is displayed in the bottom part of the measurement screen.

·If the measured number of near points or the measured number of far points exceeds its set limit, the LT 7030A changes the color of the histogram bar to indicate this. At the same time, the display color of the depth image and the overlay image is changed to make it easy to see the locations where the limit has been exceeded.

·The LT 7030A can display a disparity error log with time codes as references.

·The LT 7030A can display a graph for observing how the maximum disparity changes over time.

·The LT 7030A has two selectable log types: the error log, in which logs are recorded when errors occur, and the data log, in which all the measured frames are recorded. The maximum disparity with time codes as a reference, the histogram, a thumbnail, and other similar data is recorded to an XML file and can be displayed in a dedicated viewer.

·The print feature of the error log viewer can be used to print data per frame or to print all the measured results. A disparity analysis report can also be printed.

·The report feature of the analyzer can be applied to the data log to produce a report of how the maximum disparity changes.

·The logs are recorded and stored in an internal SSD. The data can be transferred to USB memory devices.

#### • Disparity evaluation in hypothetical viewing environments

Interpupillary distance, viewing distance, and screen width can be entered as instrument parameters, which makes it possible to evaluate the stereopsis effect that occurs in hypothetical viewing environments.

#### • Monitoring of 3D video

Connecting the HDMI output connector to a 3D TV makes it possible to monitor 3D video.

#### • Running the OS in ROM Mode \*2

The system OS runs in ROM mode. Even if the power supply is suddenly cut off, it will not affect the system.

\*1 The automatic measurement display is shown with a time lag compared to the signal input. Also, if there are many flat parts in the video, if there are repetitions of similar patterns, if there are scenes that are extremely bright or dark, or in similar situations, incorrect depth information may be displayed.

\*2 The D drive is not handled as ROM. Data stored on this drive may be lost.

<b>Dimensions</b>	482 (W) x 88 (H) x 250 (D) mm 16 7/8 (W) x 3 1/2 (H) x 9 7/8 (D) inch, (excluding protrusions)
<b>Weight</b>	5.8 kg (excluding accessories)

#### ■ REAR PANEL

