

Automated Optical Inspection System



The Automated Optical Inspection System (AOIS) is the product of nearly 20 years of experience and know-how from IGNIS Innovation. The AOIS system corrects for initial uniformity (mura) problems in emissive displays (OLED and MicroLED) stemming from manufacturing, material properties and device physics.

The de-mura algorithm developed and patented by IGNIS Innovation is applicable to all emissive display modules regardless of size, pixel circuit, and backplane. All markets (TV, mobile, IT, wearable, etc.) can take advantage of this technology. In addition to display module assemblies, the solution is also applicable to fully assembled devices and has been verified across multiple handsets from major vendors. This system is applicable to both glass (rigid) and plastic (flexible) substrates.

The AOIS is comprised of an optical instrument (developed by IGNIS Innovation) which images the device under test (DUT), de-mura algorithms which analyze the images and create correction factors for each DUT on a per pixel basis and a mechanical stage which support the DUT during the measurement phase.

The correction factors may be viewed on a PC using the Microsoft® Windows® 10 operating system and installed with the MaxLife® Monitor software.



AOIS SPECIFICATIONS

System

Takt time* <30 seconds

Optical

Camera Proprietary IGNIS PCIe 20 Mega-Pixel camera
Lens 28mm focal length standard (other lenses available)

Software

Operating System Microsoft® Windows® 10
De-mura Algorithm Proprietary IGNIS IP

Electrical

Voltage 120V
Current 6A

Mechanical

Weight 120 lbs
Size 23"x21"x34"

All specifications subject to change without notice

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*Based on a resolution of 2880 x 1440 and does not include mobile software updates



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