Spectral Imaging Series

for REFLECTIVE LCD

MSColor 32

Multispectral imager and Spectrophotometer

MSColor 32's benefits

Turnkey portable solution
High spatial & spectral resolution
1.2M pixels High Resolution 2D CMOS Sensor
Complete solution for reflectance measurement and analysis
Optional LED illumination ring in the visible or UV

ADVANCED COLORIMETRY by ELDIM

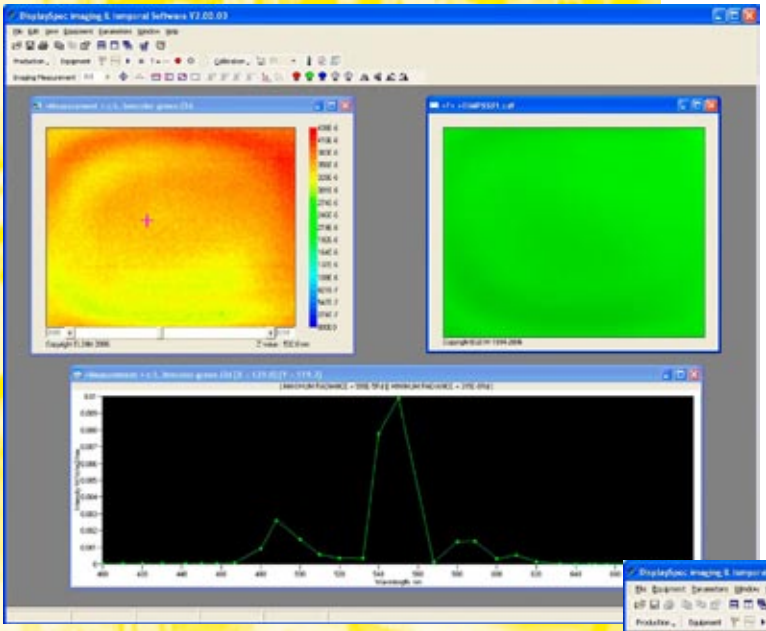
MSColor 32 DESCRIPTION

The MSColor 32 series delivers a high resolution 2D-Multi spectral measurement. Based on 31 interferential filters, MSColor 32 provides discreet spectral radiance between 400 and 700nm. Its Peltier cooled 1.2M pixels CMOS sensor enables sensitive measurements. MSColor 32 is easy to use and to set up, including a real time acquisition for focusing.

Measurements conditions include:

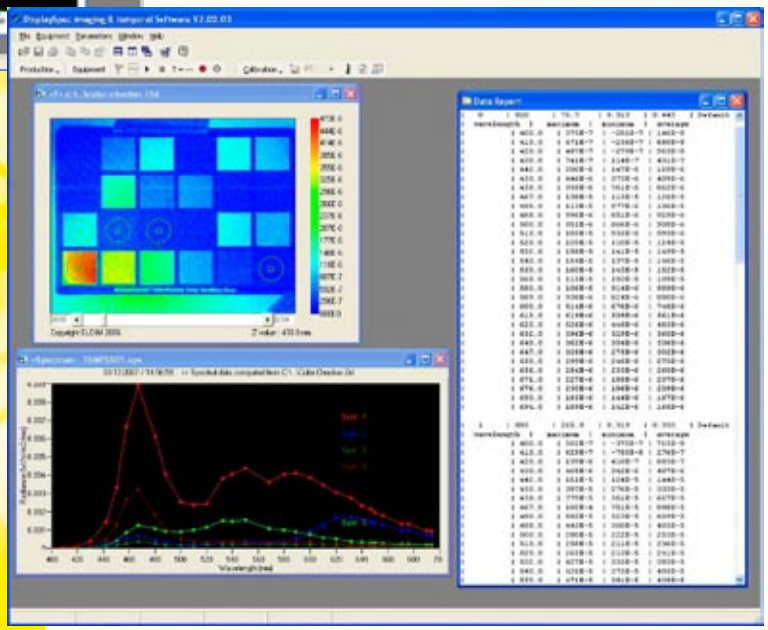
- Selection of the wavelength resolution (10 or 20nm)
- Fixed or automated integration times
- Optional integrated illumination for reflectance measurements (reference white sample provided)

SOFTWARE



DisplaySpec software features

- Auto-Range
- Automatic sensitivity
- Dynamic optimization
- Binning



DisplaySpec software analysis

- Luminance and Color computation
- Spectral/Space cross-sections
- Isocurves
- Measurement Spots available
- False color representation
- Chart and Data Report

A 32 bit and user-friendly software DisplaySpec

DisplaySpec is compatible with Windows systems*. Through an ActiveX interface, full remote control can be realized on software such as LabView, Matlab, VBA, VBScript, Javascript, C, C++. With the ActiveX technology, build your own custom sequence.

* Ask for specifications

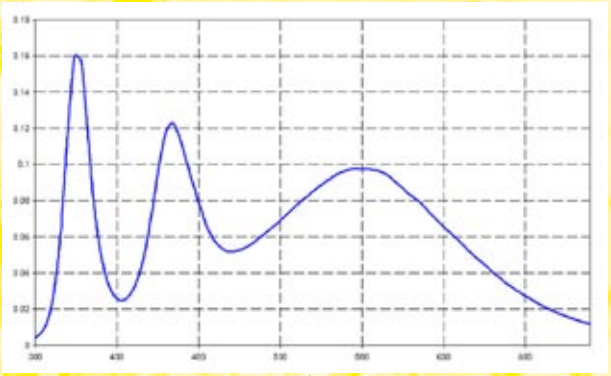
OPTIONS

Absolute reflective measurement toolkit.

LED ring illumination

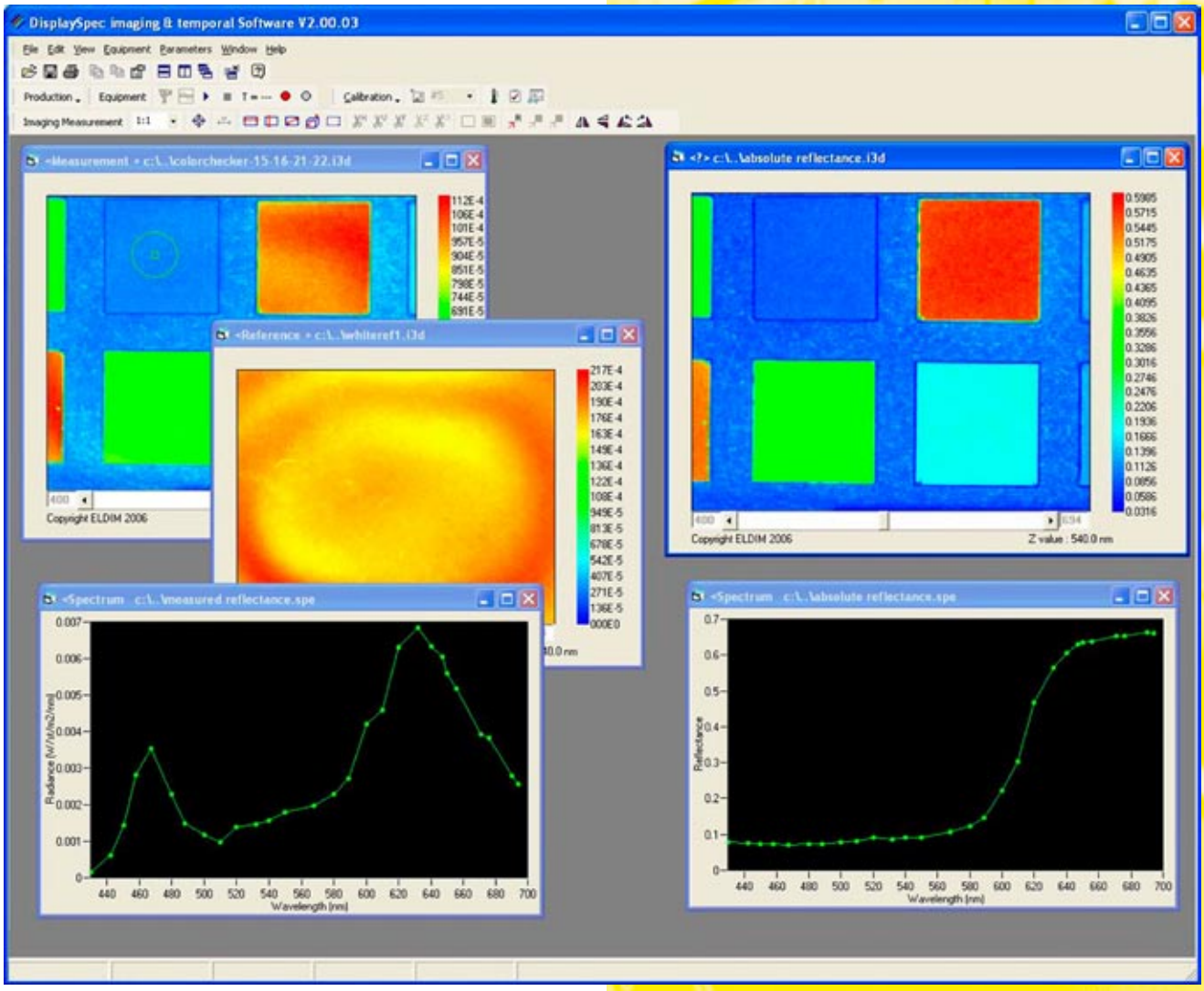
- spectrum covering 400-700nm range
- stabilized source (intensity regulation)
- Computer controlled
- 10 to 25cm working distance

Lighting option allows a full absolute reflectance computation based on a white reference measurement.



LED ring wide spectrum

LED ring luminance as a function of working distance



MSColor 32 Hardware Specifications

CMOS Sensor	10 bits monochrome CMOS Sensor (1024x1280) 6µm square pixel size 7.68mm x 6.14mm active image area Auto-ranging and offset adjustment
Cooling	Double stage peltier cooling -15°C
Objective	F-mount format Lens 50mm f/2.8
Filters	Standard configuration: 31 interferential filters from 400 to 700nm with 10nm bandwidth (400, 410, 420, 430, 442, 450, 458, 467, 480, 488, 500, 510, 520, 532, 540, 550, 568, 580, 589, 600, 610, 620, 632, 640, 647, 650, 656, 671, 676, 690, 694) Optional near infrared filters
Working Distance	10cm – Infinity (5.5cm x 4cm at 25cm)
Performances	±4% between 400 and 700nm for the spectral irradiance ±3% on luminance in the range 200-4000Cd/cm2 ±0.005 on x,y color coordinates
Connection	USB 2.0
Voltage & Power	110/220V, external power supply
Size & Weight	Weight: 5kg Size (L x W x H): 176mm x 188mm x 205mm

MSColor 32 Software Specifications

Features	Auto-range, Automatic sensitivity / Dynamic optimization, Binning.
Analysis	Luminance & Color computation, Spectral cross-sections (1D or 2D), Isocurves, False color representation, Chart & Report printing.
Mathematical function	Add, Subtract measurements, Multiply or add by a constant, Measurement rotation or flip, Zoom (x4), Copy/Paste Pictures, Charts and Data.
Measurement spots tool	Define any type of measurement spot, Export predefined configuration. Compute average on spot for Luminance, Color & Spectrum.

MSColor 32 Options Specifications

LED ring	120mm Diameter Self powered and computer controlled through MSColor 60 LEDs for a wide spectrum illumination (400-700nm) ±1% stabilized after 10 minutes warming
White reference sample	For absolute reflectance measurement.

ELDIM ELECTRONICS FOR DISPLAYS AND IMAGING DEVICES

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