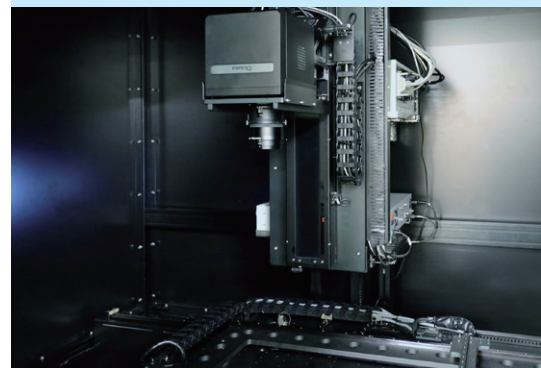


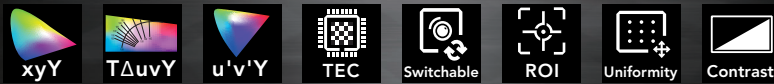
MODEL 71803 SERIES

KEY FEATURES

- Equipped with 12-bit high-resolution sensor
- TEC cooling chip for precise temperature control
- Measurement items:
Chromaticity/luminance/contrast/
uniformity/correlated color temperature
- Fast and accurate luminance and color measurement
- Automatic and manual definition of regions of interest (ROI)
- Built-in ANSI specification 5/9/13 point measurement
- CoaXpress ultra-high-speed signal interface
- CIE-matched filter that closely approximates human visual perception
- Lens selection according to the application
- Instant image capture according to the set exposure time
- Complete control and analysis software required for optical measurement
- Graphical operation interface
- Automatic test report output
- Detailed data evaluation and image analysis
- Various photometric measurements for wide range of displays and LEDs



Chroma



2D COLOR ANALYZER MODEL 71803 SERIES

Chroma 2D Color Analyzer 71803 Series is equipped with a high-resolution scientific-grade camera and uses Thermoelectrically Cooled (TEC) CMOS with precision optical components and circuit design to provide accurate, fast and highly repeatable measurements. Combined with the CIE-matching and ND filters, the analyzers produce measurement results that closely correspond with real human perception, suitable for measuring the chromaticity, luminance, contrast, uniformity and correlated color temperature (CCT) of various kinds of displays.

The 71803 series offers complete control and analysis software required for optical measurement, with intuitive setting and measurement control as well as detailed image data evaluation and analysis, including camera operation parameters, exposure time, and pixel binning. CIE chromaticity diagrams for color analysis and real color simulation functionality are also provided. Furthermore, users can manually calibrate the instruments to factory standards with the calibration function.

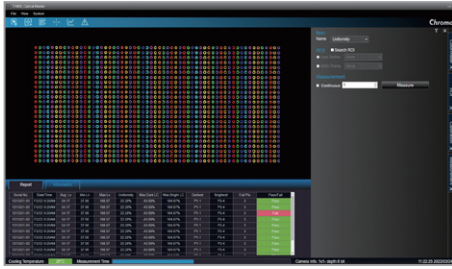
In terms of image quality, the Color Analyzer 71803 use a high-resolution camera to measure 2D chromaticity and luminance, particularly suitable for applications that require speed and large numbers of measurement points, such as flat panel display uniformity and LED/Mini LED backlight die defects testing.

With the included standalone software, the user can set any number of points of interest according to the application's requirements. The software can obtain the chrominance and luminance of each point independently, detect abnormalities of each light emitting element such as defects, color difference, and color cast, and additionally supports measurement of the DUT's uniformity and contrast. After the DUT's image has been captured, it can be analyzed for various items in user-specified regions of interest. Last but not least, the built-in ANSI specification 5/9/13 point measurement further helps to improve operation convenience and efficiency.

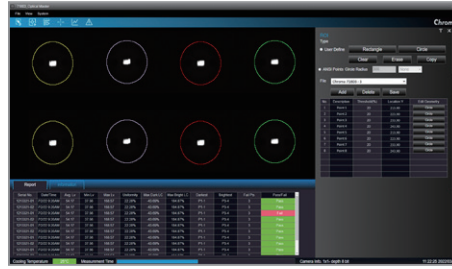
To achieve an even faster color and optical test solution, the CoaXpress ultra-high-speed signal interface is used for transmission at data rates up to 6.25 Gb/s, or even rates as high as 25Gb/s when using four-wire simultaneous transmission, providing high-resolution image transmission that is both fast and stable.

Users can select from a variety of image quality inspection software for different industry and test applications. The provided optical measurement Software Development Kit enables rapid design of suitable test programs to meet the needs of high-volume manufacturing inspection applications in the display, backlight module and AR/VR industries.

OPTICAL MASTER SYSTEM SOFTWARE



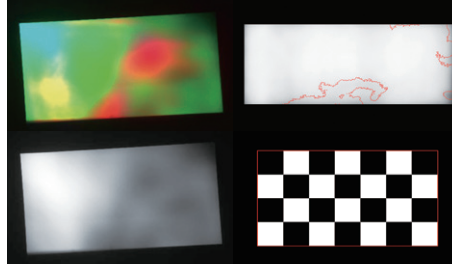
Measurement Interface
The home screen displays individual measurement items, a measurement item list and results statistics, and provides a real-time display of the state of the DUT.



Define Points of Interest
The included software allows the user to edit the desired points of interest and scan positions. The edit function will automatically track these measurement points, and can also configure the steps of successive measurements.



Instant Display
The user can use the real-time imaging function to measure focus and field of view and verify the DUT. The camera can continuously capture images according to the defined exposure time.



A Variety of Measurement Items

- Chromaticity
- Luminance
- Uniformity
- Contrast
- Correlated Color Temperature (CCT)

SPECIFICATIONS

Model	71803-2	71803-3	71803-4
Resolution	4,896 x 3,264	7,920 x 6,004	15,840 x 12,008 ^{*1}
Megapixels	16M	50M	200M
Sensor Type	CCD	CMOS	
Luminance ^{*2}	Minimum	0.5 cd/m ²	0.01 cd/m ²
	Maximum	>20,000 cd/m ² ; with optional ND Filters	
	Accuracy	± 3%	
	Repeat Accuracy (2σ)	± 0.5%	
Chromaticity ^{*2}	Accuracy	± 0.002	
	Repeatability (2σ)	± 0.0006	
FOV	14 mm, 87° x 65°	50 mm, 40° x 30°	50 mm, 40° x 30°
	50 mm, 30° x 20°	105 mm, 19° x 15°	105mm, 19° x 15°
Measurement Functions	Luminance, Chromaticity, CCT, Contrast, Uniformity, Dominant wavelength		
Measurement Units	cd/m ² , CIE (x, y) and (u', v'), Kelvin (CCT)		
Communication Interface	Camera Link	CoaXPress	CoaXPress
Power	100 ~ 240 V, 47 ~ 63 Hz	100 ~ 240 V, 47 ~ 63 Hz	100 ~ 240 V, 47 ~ 63 Hz
Dimensions (H x W x D)	222 mm x 186 mm x 188 mm	230 mm x 204 mm x 214 mm	230 mm x 204 mm x 214 mm
Weight	7 kg	8.5 kg	9 kg
Operating temperature	0 ~ 30°C		
Humidity Range	20% ~ 70% with no condensation		

Note*1: Achieved with 7,920 x 6,004 Pixel Shift technology.

Note*2: In the camera's field of view, the standard illuminant A follows Chroma's test conditions at 100nit, with a measurement point size of 100 pixels. However, chromaticity below 1 cd/m² is not included in the specification.

* All specifications are subject to change without notice.

ORDERING INFORMATION

71803-2: 2D Color Analyzer (16M)
71803-3: 2D Color Analyzer (50M)
71803-4: 2D Color Analyzer (200M)

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71803 Series

HEADQUARTERS
CHROMA ATE INC.
88 Wenmao Rd.,
Guishan Dist.,
Taoyuan City
333001, Taiwan
T +886-3-327-9999
F +886-3-327-8898
www.chromaate.com
info@chromaate.com

U.S.A.
CHROMA ATE, INC.
(U.S.A.)
7 Chrysler, Irvine,
CA 92618
T +1-949-421-0355
F +1-949-421-0353
Toll Free +1-800-478-2026
www.chromaate.com
info@chromaus.com

EUROPE
CHROMA ATE EUROPE B.V.
Morsestraat 32,
6716 AH Ede,
The Netherlands
T +31-318-648282
F +31-318-648288
www.chromaate.com
salesnl@chromaate.com

CHROMA GERMANY GMBH
Südtiroler Str. 9, 86165,
Augsburg, Germany
T +49-821-790967-0
F +49-821-790967-600
www.chromaate.com
salesde@chromaate.com

JAPAN
CHROMA JAPAN
CORP.
888 Nippa-cho,
Kouhoku-ku,
Yokohama-shi,
Kanagawa,
223-0057 Japan
T +81-45-542-1118
F +81-45-542-1080
www.chroma.co.jp
info@chroma.co.jp

KOREA
CHROMA ATE
KOREA BRANCH
3F Richtogether
Center, 14,
Pangyoeyeok-ro 192,
Bundang-gu,
Seongnam-si,
Gyeonggi-do
13524, Korea
T +82-31-781-1025
F +82-31-8017-6614
www.chromaate.co.kr
info@chromaate.com

CHINA
CHROMA ELECTRONICS
(SHENZHEN) CO., LTD.
8F, No.4, Nanyou Tian
An Industrial Estate,
Shenzhen, China
T +86-755-2664-4598
F +86-755-2641-9620
www.chroma.com.cn
info@chromaate.com

SOUTHEAST ASIA
QUANTEL PTE LTD.
(A company of Chroma Group)
25 Kallang Avenue #05-02
Singapore 339416
T +65-6745-3200
F +65-6745-9764
www.quantel-global.com
sales@quantel-global.com