

**NEW** Color Data Software SpectraMagic NX2

> **Pro version Lite version**







**Configuration Tool** 



**Instrument Check App** 



Easy to use / Streamlines workflow / QC software used in fields around the world

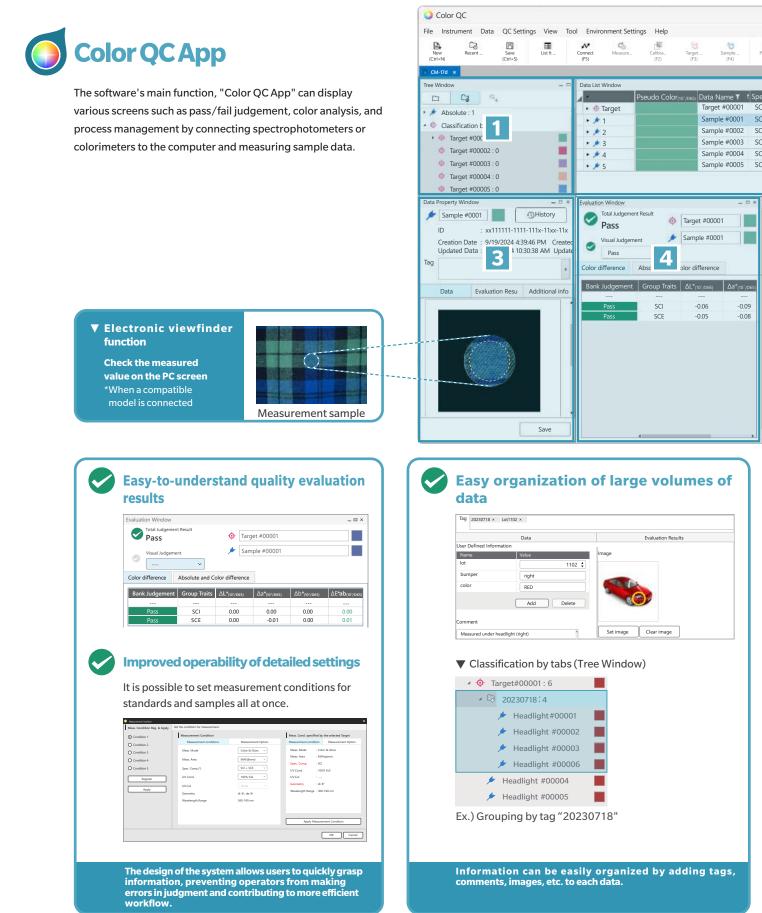


Giving Shape to Ideas



# Color Data Software SpectraMagic NX2

Redesigned user interface Long-awaited software with enhanced QC functions



### SpectraMagic NX2 consists of three apps



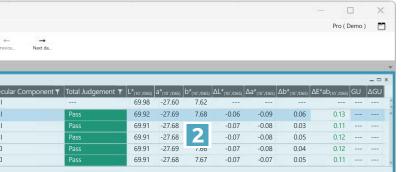
Color QC App

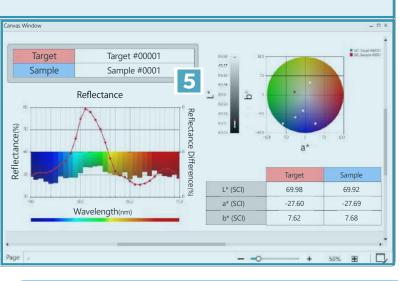
Connect measuring instruments and easily perform advanced color quality control



Instrument Check App Easily check the condition of the measuring instrument

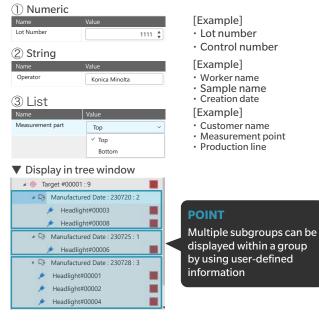






### Supports advanced classification with user-defined information

Examples of using User Defined Information : There are three value types to choose from (numeric/string/list).



User-defined information (Pro version only) is additional information for classifying measurement data in detail. Measured data can be quickly identified by setting this information in advance.

#### Display and edit according to purpose

Screens that users have arranged and edited can be saved as templates.

Objects such as measurement data and graphs can be copied directly to Excel<sup>®</sup> for easy data management and report creation.

#### 1 Tree Window

Shows document measurements organized into absolute and target measurements.

#### 2 Data List Window

Shows the measurement data for the selected branch in the Tree Window.

#### Data Property Window

Shows the data properties for the selected sample.

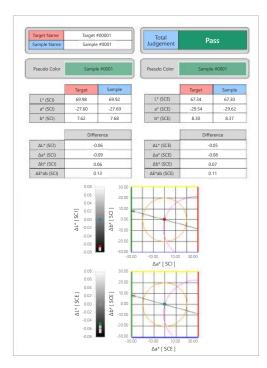
#### **4** Evaluation Window

Shows the evaluation results and measurement data for the selected sample.

#### 5 Canvas Window

An area in which various graphic elements such as spectral graphs, data tables, etc. can be placed.

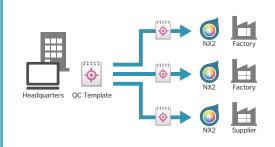
### Original report creation function



The print screen allows you to freely arrange objects to create your own layout.

### Full range of functions in Color QC App

#### Enables consistent color management across factories

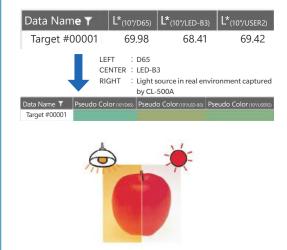


Brand owners/managers can use QC templates (Pro version only) to standardize workflows and streamline inspection tasks. By setting measurement types, multiple color tolerances, and display layout, the operator does not need to configure the settings in advance, which helps preventing errors.

<Differences between two types of templates>

Display Templates : Only display layouts and list items can be saved. QC Templates : In addition to display templates, you can save target data and tolerance settings, target and sample measurement conditions, display layout, instrument settings, etc.

#### Data comparison under multiple observation conditions (Observer/Illuminant) is possible



In the data list window, you can set indexes according to various standards and color space.

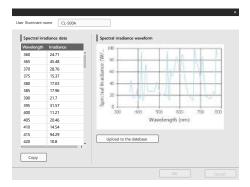
The increased number of configurable items means that it is no longer necessary to switch settings for each measurement, and it is possible to display and evaluate under multiple observation conditions (Observer/ Illuminant) at the same time. (There is no limit to the number of light sources.) In addition to improving work efficiency, it also makes it easier to evaluate how colors appear under various environments.

#### Now possible to evaluate LED illuminants!

Usage example:

Acquiring measurement data based on visual perception in a room using LED lamps

LED illumi	nants				
LED-B1	LED-B2	LED-B3	LED-B4	LED-B5	1
LED-BH1	LED-RGB1	LED-V1	LED-V2		u



#### Now you can import data from Illuminance Spectrophotometer CL-500A!

By connecting CL-500A (optional), you can import light source information of the actual environment during measurement in order to quantify colors that are closer to what the human eye sees and in the field. Up to 100 user light sources can be registered.

Example of use : Evaluating how car body colors appear under various lighting conditions in a car showroom

(1) Measure the spectral irradiance data of the actual light source with CL-500A



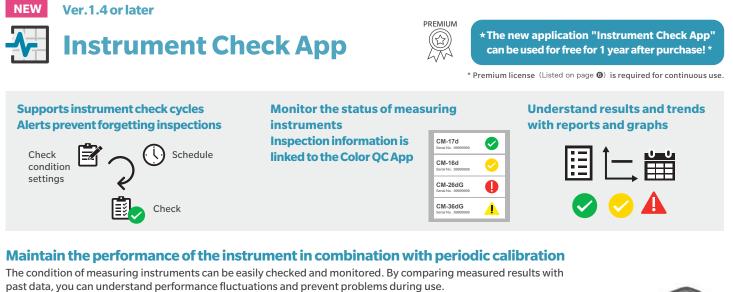
(2) Import the light source data from(1) into SpectraMagic NX2

Evaluation using user light sources of real environments is also possible



(3) Color evaluation is possible by selecting the environmental condition of (1)





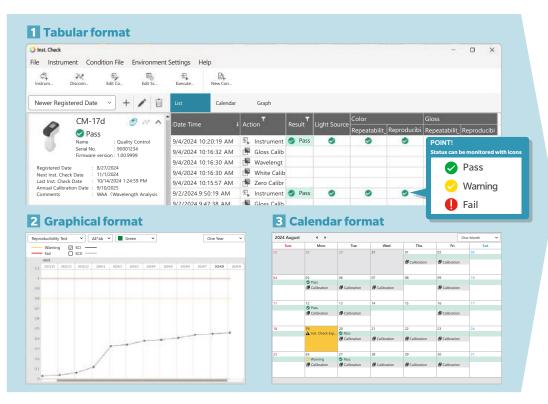
<Three indicators>

Repeatability: Evaluates the short-term repeatability by using the white calibration plate and the gloss plate. It shows changes in the variability of measurement data.

Reproducibility: Evaluates color differences by remeasuring a reference sample. Allows monitoring of long-term variations in measurement data.

- Light source output: Evaluates the amount of variation in light source light intensity from the shipment of the instrument (or from the completion of calibration service).
- After periodic calibration at a Konica Minolta-authorized service factory, this application can monitor the measuring instruments to ensure high accuracy until the next periodic calibration.
- The report function can also be used as a tool for efficient supply chain management.

Periodic calibration: In addition to inspection and calibration of the equipment, cleaning and replacement of parts according to their condition is performed. To maintain the accuracy of the instruments, we recommend a combination of daily inspections using this application and periodic calibration.



#### Easy-to-read PDF reports are automatically generated

Issue Date: 10/4/2024 2:50:11 PM +09:00 Issued By: Administrator Computer Name:	
Intrument Check Date: 10/4/2024 2:48:14 P	M +09:00
Inspected By: Administrator	
Nodel: CN+17d Serial No.: 10001055	
Test Results	
🕏 Pass	
Test Results	
eLight Source Test	
Light Intensity Level	100 %
Repeatability Test	
<ul> <li>odE*ab</li> </ul>	0.005
<ul> <li>Reproducibility Test</li> <li>Green: 1</li> </ul>	
<ul> <li>ΔE*ab</li> </ul>	0.020
<ul> <li>ΔL*</li> </ul>	-0.015
Δ3*	-0.010
<ul> <li>Δb*</li> </ul>	0.008

### For reproducibility evaluation, we recommend using the green tile for control

It is also possible to select an optional color plate (14 colors in total) that is close to the actual evaluation sample, or a sample that the customer owns.

#### **Recommended for:**

- Those who carry out periodical inspections and calibrations every year.
- Those who need to manage the history of instrument inspections, calibrations, etc. in ISO quality management.
- Those who need PQ (Performance Qualification).





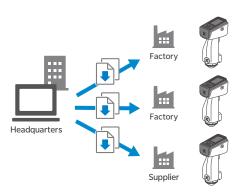


Convenient setting software is integrated into this package

The CM-CT1 gives manufacturers the means for easily and quickly setting up their spectrophotometers. Moreover, when multiple devices are used or when the same conditions need to be set amongst multiple factories or suppliers, settings can be compiled into a file and shared.

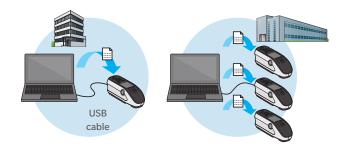
Setting of User Index\*1 has been added.

- \*1: Settings can be made when CM-17d/16d, CM-26dG/26d/25d, CM-25cG or CM-5/CR-5 is connected. The feature is only available when SpectraMagic NX2 dongle is plugged into the PC or a
- The feature is only available when SpectraMagic NX2 dongle is plugged into the PC or a dongleless license is activated.



#### **Instrument Settings**

CM-CT1 allows various instrument settings, such as measurement conditions, instrument display contents, user-based instrument operation restrictions, WLAN/Bluetooth<sup>®</sup> settings, etc. to be set using a computer. The software also allows setting contents to be exported to a file which can then be applied to multiple spectrophotometers.

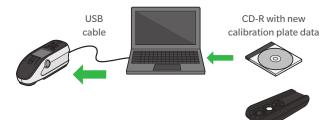


#### **Export Data**

Data saved to a spectrophotometer (spectral reflectance data, plus gloss data for CM-26dG or CM-25cG) can be saved to a CSV file.

#### **Calibration Data Settings**

When purchasing a new white calibration plate or gloss calibration plate, the calibration plate data must be set in the instrument before measurement can be performed.



USB cable

#### **Remote Control**

While displaying the LCD screen of the spectrophotometer\* on a computer in real time, CM-CT1 enables control equivalent to key operations on the actual instrument (except for control by power switch and measurement area switch)

In addition, by accessing (via remote desktop, etc. over a network) a computer connected to the spectrophotometer, control of the spectrophotometer is possible even from remote locations. \* CM-26dG series, CM-25cG, CM-17d series, or CM-M6 devices only.





Added LED light sources Added connection for new products "CM-17d/16d"



Added Instrument Check App

#### What is Premium License?

SpectraMagic NX2 is also available as a term-based premium license (paid) which allows you to experience special value in addition to regular use.

By signing up this license, you can use the Instrument Check App that allows you to check the status of your instrument, as well as additional functions that come with version upgrades.

When you purchase this software, a one-year free premium license is included.

## **Main Specifications**



#### <Compatible Instruments>

1.3

Measuring instruments CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d\*<sup>9+10</sup>, CM-25cG\*<sup>10</sup>, CM-M6, CM-700d/CM-600d, CM-5/CR-5\*<sup>9+10</sup>

#### <Main features>

Features*1	Connect / Disconnect insturument, Display instrument information, Setting of instrument settings (System, measurement conditions, Display <sup>84</sup> , Default toleranse, Target filter <sup>45</sup> , User Index <sup>46</sup> ), File import / export, Data output, Setting of calibration data, Remorte control of instrument <sup>*7</sup> , WLAN connection settings <sup>88*10</sup>
Supported file formats*2	Input/output instrument settings file: *.cm17d, *.cm16d, *.cm26dg, *.cm26d, *.cm25d, *.cm23d, *.cm25cg, *.cmm6, *.cm700d, *.cm600d, *.cnd Output data file: *.csv Input calibration data file: *.cwl, *.cwm, *.cws, *.cw6, *.gum, *.gus Input/output WLAN connection settings file: *.wcsf
Display languages	Japanese, English

#### <Minimum Computing Requirements\*3>

- $\mathsf{OS} \qquad : \mathsf{Windows}^{\circledast} \, \mathsf{10} \, \mathsf{Pro} \, \mathsf{64} \, \mathsf{bit} \, \mathsf{Version} \, \mathsf{1903} \, \mathsf{or} \, \mathsf{higher}/\mathsf{Windows}^{\circledast} \, \mathsf{11} \, \mathsf{Pro}$
- CPU : Intel<sup>®</sup> Core i5 2.7GHz or higher processor (recommended)
- Memory : 2GB or more (4GB or more recommended)

Storage : 10GB or more

USB port : Required for connection with measuring instrument, Required for SpectraMagic NX2 dongle

- \*1: The functions that can be displayed, set, and executed differ depending on the connected instrument.
- \*2: The file that can be input/output differs depending on the connected instrument.
  \*3: The hardware of the computer system must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the above
- specifications.
  \*4: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG, CM-M6 or CM-5/CR-5.
- \*5: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d or CM-25cG.
- \*6: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-5/CR-5 and only with SpectraMagic NX2 license.
- \*7: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-M6.
- \*8: WLAN settings possible when optional WLAN/Bluetooth® Module is installed. \*9: Not available in all countries.
- \*10: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported.Click here for firmware versions of compatible instruments. ↓

https://www.konicaminolta.com/instruments/ download/software/color/cmct/index.html



### Instrument Check App

#### <Compatible Instruments>

Measuring	CM-3700A*1, CM-36dG/CM-36dd/CM-36dGV, CF-300*2, CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d*2, CM-25cG,
instruments	CM-700d*1/CM-600d*1

#### <Main features>

-main reature			
Check items*3	Repeatablility, Reproducibility, Light Source output, Repeatability (Gloss), Reproducibility (Gloss)		
Features	[Measurement]Checking of instruments condition[Data]Exporting results of check to instruments[Graphs]Check results shown on trend graphs, lists, and calendar[Others]Saving/printing of check report		
External I/O	Importing/exporting of data files in original format Exporting report files in PDF format		
Display languages	Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean		

\*1: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Firmware version of compatible instruments conform to Color QC App.

\*2: Not available in all countries.

\*3: Items available depend on the instrument model.

(Gloss) items available only for CM-36dG, CM-36dGV, CM-26dG, and CM-25cG.



### **Color QC App**

In addition to the "PRO version" with enhanced, further developed basic functions, there is also a "Lite version" with limited functions.

#### <Compatible Instruments>

Measuring	Spectrophotometer	CM-3700A* <sup>6</sup> , CM-36dG/CM-36d/CM-36dGV, CF-300* <sup>4</sup> , CM-5* <sup>6</sup> , CM-3600A* <sup>6</sup> /CM-3610A* <sup>6</sup> , CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d* <sup>4</sup> , CM-M6, CM-25cG, CM-700d* <sup>6</sup> /CM-600d* <sup>6</sup> , CM-512m3A* <sup>6</sup> , CM-2500c* <sup>6</sup> , CM-2600d* <sup>6</sup> /CM-2500d* <sup>6</sup>
instruments	Chroma Meter	CR-5*4*6, CR-400*6/CR-410*6, DP-400*6

#### <Main features>

<main featu<="" th=""><th>ires&gt;</th><th></th></main>	ires>			
Observer		2°, 10°		
Color system/	Pro, Lite	L*a*b*, L*C*h, Lab99, LCh99, Lab99o, LCh99o, Hunter Lab, and their color differences; Munsell (C, D65)		
color space	Pro only	XYZ, Yxy, u'v', u*v*, and their color differences		
	Due Lite	MI; GU and difference (CM-25cG, CM-26dG, CM-36dG/CM-36dGV); Opacity (ISO 2471, TAPPI T425 89% white plate)*1		
	Pro, Lite	CM-5/CR-5 only: Gardner, Iodine Color Number, Hazen/APHA, European Pharmacopoeia, US Pharmacopeia		
Index	Pro only	WI (CIE1982, ASTM E313-73, Hunter, ASTM E313-98, BERGER, TAUBE, STENSBY, Ganz); YI (ASTM D1925-70, ASTM E313-73, ASTM E313-98, DIN 6167); B (ASTM E313-73); Tint (CIE 1982, ASTM E313-98, Ganz); Standard Depth (ISO 105.A06); Brightness (TAPPI T452, ISO 2470); Density (Status A, Status T); Dominant Wavelength; Excitation Purity; 555; RxRyRz; Grey Scale/Grey Scale Rating (ISO 105.A05); K/S Strength (Apparent, ( $\Delta E^*_{ab}, \Delta L^*, \Delta L^*$		
Color difference formula	Pro, Lite	$\Delta E^*ab$ (CIE 1976); $\Delta E_{00}$ (CIE DE2000) and each component of lightness, saturation and hue; $\Delta E$ 99 (DIN99), $\Delta E$ (Hunter); $\Delta E^*_{94}$ (CIE 1994) and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 990 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightness, saturation and hue; $\Delta E$ 900 and each component of lightnes		
	Pro only	ΔE <sup>*</sup> 94 (Special)* <sup>5</sup> and each component of lightness, saturation and hue; ΔEc (degree) (DIN 6175-2); ΔEp (degree) (DIN 6175-2); FMC-2; NBS 100; NBS 200; Audi2000		
Illuminant	Pro, Lite	A, C, D <sub>50</sub> , D <sub>65</sub> , F2, F11		
	Pro only	D <sub>55</sub> , D <sub>75</sub> , F <sub>6</sub> , F <sub>7</sub> , F <sub>8</sub> , F <sub>10</sub> , F <sub>12</sub> , U <sub>50</sub> , ID <sub>50</sub> , ID <sub>65</sub> , LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2, User illuminant (100 maximum)		
Graph and canvas objects	Pro, Lite	Spectral reflectance (transmittance) and its difference; L*a*b* absolute color distribution; Hunter Lab absolute color distribution; $\Delta$ L*a*b* color difference distribution; Hunter $\Delta$ Lab; xy chromaticity diagram; Trend graph; Histogram; Multichannel graph; 2D user-specified axis graph Text labels, Numerical labels, Images, Data lists, Statistics, Pseudo-color patches		
	Pro only	K/S and its difference; Absorbance and its difference		
Features	Pro, Lite	[Measurement] Viewfinder (CM-17d, CM-36d series, CF-300*2); Manual averaging measurement; Trigger measurement (excluding CF-300, CM-3700A, CM-3600A and CM-3610A)         [Data]       Categorize by tags; Attaching images/comments; Evaluation results-pass/fail judgment; Import/export; Stored data reading/target data writing (excluding CM-3700A, CM-3600A, CM-3610A, CM-36d series and CF-300)         [Other]       Shortcut key settings; Display template creation/output/application; Report printing; Printing to serial printer; Sound (on measurement, pass judgment, fail judgment)		
	Pro only	[Calibration]       User calibration, UV adjustment         [Measurement]       Interval measurement         [Security]       User management/operation restrictions         [Data]       Data search under specified conditions; User illuminant source registration (manual input, from file, from CL-500A); Automatic selection of standards; Auto tolerance; Classification by user defined information         [Other]       QC template creation/editing/output; Macro function; External software startup; Job settings (CM-17d/CM-16d, CM-26dG/CM-25d, CM-25cG)		
Number of files a	nd data	Number of files that can be opened simultaneously: 10 Number of data that can be stored in a file: 10,000 (total of target data and measurement data)		
Supported file fo	rmats	NX2 (.mesx2, .mtpx2), NX (.mtp, .mes, .mea; reading only); Other (.csv (output only), .cxf); SpectraMagic DX files (.mesx) need to be converted to .mes with a conversion tool NX2 QC template (.qctp; Lite: application only)		
Display language	es	Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean		

#### <Minimum Computing Requirements\*3>

OS: Windows<sup>®</sup> 10 Pro 64 bit Version 1903 or higher/Windows<sup>®</sup> 11 Pro CPU: Intel<sup>®</sup> Core i5 2.7GHz or higher processor (recommended) Memory: 2GB or more(4GB or more recommended) Storage: 10GB or more USB port: Required for dongle version Connection to external network: Required for activation

- \*1: For opacity (ISO 2471, TAPPI T425 89% white plate) and haze (ASTM D1003-97) measurements, software measurement procedure and calculations follow the corresponding standard. Whether the geometric requirements of the corresponding standard are met depends on the instrument used.
- \*2: Requires optional accessories.
- \*3: The hardware of the computer system must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the above specifications

https://konicaminolta.com/instruments/network

- \*4: Not available in all countries.
- \*5: When comparing two colors, please use △E\*94(Special) if you do not want to set one as the standard.
- \*6: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Click here for firmware versions of compatible instruments. ↓ https://www.konicaminolta.com/instruments/download/software/color/smnx2/index.html

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- The specifications given here are subject to change without prior notice.
  Displays shown are for illustration purposes only.



#### SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument. Always connect the instrument to the specified power supply voltage. Improper connection may

cause a fire or electric shock.



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Office Wrocław, Po		+46(0)31 7099464 E-Mail +48(0)71 73452-11 E-Mail	info.nordic@seu.konicaminolta.eu info.poland@seu.konicaminolta.eu
	na PHONE: , China PHONE: China PHONE: China PHONE: a PHONE: hina PHONE:	+86-(0)21-6057-1089         E-Mail           +86-(0)20-3826         1251         E-Mail           +86-(0)20-3826         4220         E-Mail           +86-(0)23-6773         4988         E-Mail           +86-(0)23-6773         4988         E-Mail           +86-(0)23-2807         1871         E-Mail           +86-(0)27-6885         6-Mail         +86-(0)75-2868         F-Mail           +86-(0)755-2868         7535         E-Mail         +86-(0)592-7107         999         E-Mail	hcn_sensing@gcp.konicaminolta.com hcn_sensing@gcp.konicaminolta.com hcn_sensing@gcp.konicaminolta.com hcn_sensing@gcp.konicaminolta.com
ore	PHONE:	+65 6563-5533 E-Mail	se-service.sg@konicaminolta.com
	Korea PHONE:		
n	Office Xiamen, Ch	Office         Xiamen, China         PHONE:           bre         PHONE:         PHONE:           HQ         Goyang-si, Korea         PHONE:	Office         Xiamen, China         PHONE:         +86-(0)592-7107 399         E-Mail:           ore         PHONE:         +65 6563-5533         E-Mail:

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