#### Main specifications

Model	CM-700d	CM-600d		
Illumination/	di: 8°, de: 8° (diffused illumination, 8-degree viewing angle), SCI (specular component included)/SCE (specular component excluded)			
viewing system	selectable with automatic switching (Conforms to CIE No. 15, ISO 7724/1, DIN5033 Teil7, ASTM E 1164, and JIS Z 8722)			
Size of integrating sphere	ø40 mm			
Detector	Silicon photodiode array (dual 36-element)			
Spectral separation device	Diffraction grating			
Wavelength range	400 nm to 700 nm			
Wavelength pitch	10 nm			
Half bandwidth	Approx. 10 nm			
Reflectance range	0 to 175%, Display resolution: 0.01%			
Light source	Pulsed xenon lamp (with UV cut filter)			
Measurement time	Approx. 1 second			
Minimum measurement interval	Approx. 2 seconds (in SCI or SCE mode)			
Bottory porformance	With alkaline dry batteries: Approx. 2,000 measurements With nickel-metal-hydride rechargeable batteries (2300 mAh): Approx. 2,000			
Dattery performance	measurements with full charge * Stand-alone continuous measurement fixed to either SCI or SCE mode at 10-second intervals at 23°C			
Measurement/	MAV: ø8 mm/ ø11 mm SAV: ø3 mm/ ø6 mm	MAV: ø8 mm/ ø11 mm only		
illumination area	Imination area * Changeable by replacing target mask and selecting lens position			
Repeatability	Spectral reflectance: Standard deviation within 0.1%, Chromaticity value: Standard deviation within $\Delta$ E*ab 0.04			
	* When a white calibration plate is measured 30 times at 10-second intervals after white calibration			
Inter-instrument agreement	Within ∆E*ab 0.2 (MAV/SCI) * Based on 12 BCRA Series II color tiles compared to values measured with a master body at 23°C			
No. of averaging measurements	1 to 10 (Auto averaging), 1 to 30 (Manual averaging)			
Display	2.36-inch TFT color LCD			
Interfaces	USB1.1; Bluetooth® standard version 1.2*			
Observer	2° observer or 10° observer			
Illuminant	A, C, D50, D65, F2, F6, F7, F8, F10, F11, F12 (Simultaneous evaluation with two light sources possible)			
Displayed data	Spectral values/graph, colorimetric values, color difference values/graph, PASS/FAIL result, pseudocolor, color assessment			
Color spaces	L*a*b*, L*C*h, Hunter Lab, Yxy, XYZ, Munsell, and color difference in these spaces (except for Munsell)			
Colorimetric data	MI, WI(ASTM E313-73/E313-96), YI(ASTM E313-73/ASTM D1925), ISO Brightness, 8° gloss value			
Color difference formulas	ΔE*ab (CIE1976), ΔE*94 (CIE1994), ΔE00 (CIE 2000), CMC (I: c)			
Storable data sets	Measurement data: 4,000 sets/Target color difference data: 1,000 sets			
Pass/fail judgment	Tolerances can be set to colorimetric values (excluding Munsell), color difference values, color values (excluding 8° gloss value) respectively			
Power	Special AC adapter; 4 AA-size alkaline dry batteries or nickel-metal-hydride rechargeable batteries			
Size	73 (W) x 211.5 (H) x 107 (D) mm			
Weight	Approx. 550 g (without white calibration cap and batteries)			
Operating temperature/ humidity range	5 to 40°C, relative humidity 80% or less (at 35°C) with no condensation			
Storage temperature/ humidity range	0 to 45°C, relative humidity 80% or less (at 35°C) with no condensation			

\* Applicable Bluetooth® profile: Serial Port Profile, Output: Bluetooth® Power Class 1 The communication distance may vary depending on the obstacles and radio wave conditions between the devices. Successful wireless communication is not guaranteed with all Bluetooth®-ready equipment. Bluetooth<sup>®</sup> is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.



#### SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction nanual before using the instrument Always connect the instrument to the specified power supply oltage. Improper connection may cause a fire or electric shock. Be sure to use the specified batteries. Using improper batteries

may cause a fire or electric shock KONICA MINOLTA SENSING, INC. Konica Minolta Sensing Americas, Inc.

Osaka, Japan New Jersey, U.S.A. Konica Minolta Sensing Europe B.V. European Headquarter /BENEL German Office French Office UK Office Italian Office Belgian Office Swiss Office Nordic Office Austrian Office Polish Office SE Sales Division

Konica Minolta (CHINA) Investment Ltd.

SE Guangzhou Office Konica Minolta Sensing Singapore Pte Ltd.

KONICA MINOLTA SENSING, INC. Seoul Office Addresses and telephone/fax numbers are subject to change without notice. For the latest contact information please refer to the KONICA MINOLTA SENSING Worldwide Offices web page: ©2007 KONICA MINOLTA SENSING, INC.

SE Beijing Office

subject to change without prior notice. If you have any questions about specifications, please contact your Konica Minolta representativ



UX	Phone : 888-473-2656(in USA) Nieuwegein, Netherland München, Germany Roissy CDG, France Milton Keynes, United Kingdom Milan, Italy Zaventem, Belgium Dietikon, Switzerland Västra Frölunda, Sweden Wien, Austria	, 201-236-4300(outside USA) Phone: +31(0)30 248-1193 Phone: +49(0)89 630267-9700 Phone: +33(0)1 493-82519 Phone: +44(0)1908 540-622 Phone: +39 02 39011.425 Phone: +32 (0)2 7170 933 Phone: +41(0)43 322-9800 Phone: +46(0)31 7099464 Phone: +43(0)1 87882-430	Fax: 201-785-2480 Fax: +31(0)30 248-1280 Fax: +49(0)89 630267-9799 Fax: +33(0)1 493-84771 Fax: +44(0)1908 540-629 Fax: +39 02 39011.223 Fax: +32 (0)2 7170 977 Fax: +41(0)43 322-9809 Fax: +46(0)31 474945 Fax: +43(0)1 87882-431	
	Warszawa, Poland Shanghai, China Beijing, China Guangzhou, China Singapore Seoul, Korea	Phone : +48(0)22 56033-00 Phone : +86-021-5489 0202 Phone : +86-010-8522 1551 Phone : +86-020-3826 4220 Phone : +65 6563-5533 Phone : +82(0)2-523-9726	Fax : +48(0)22 56033-01 Fax : +86-021-5489 0005 Fax : +86-010-8522 1241 Fax : +86-020-3826 4223 Fax : +65 6560-9721 Fax : +82(0)2-523-9729	

http://konicaminolta.com/instruments/about/network



# Spectrophotometer **CM-700d/600d**

Compact, lightweight, portable spectrophotometer with wireless communication and color LCD screen

## **Field-oriented spectrophotometer for** reliable color measurement

Unprecedented ease of handling and



The essentials of imaging

## CM-700d/600d: Compact, lightweight spectrophotometers with wireless communication and color LCD screen, offering excellent portability and operability!

We are surrounded by abundant colors. In the automotive, home appliance, portable phone, textile and clothing industries the variation in colors are increasing in order to differentiate products. In the food industry, the importance of color management continues to rise. Under such circumstances, the applications of color-measuring instruments have been rapidly spreading from R&D or QC departments to production sites, as well as from product manufacturers to parts/material suppliers. The CM-700d/600d is a spectrophotometer that has achieved a much more compact and lightweight body while retaining the sophisticated functions of Konica Minolta's conventional models by utilizing our original optical design and signal processing technologies. It allows easy and accurate color measurement in various sites and occasions. The easy-to-read color LCD screen allows intuitive recognition of measurement results. Experience the ease for yourself!

#### Perfect design to fit in your hand

- · Ergonomic, compact and lightweight
- Vertical format for easy positioning
- Excellent portability for production sites



#### Bluetooth<sup>®</sup> compatible!

Data can be sent to a PC or a mobile printer via Bluetooth® wireless communication. (USB communication with a PC is also possible.)



Automatic switching for SCI and SCE measurement

arge memory capacity No. of storable data sets Target data: 1,000 sets Measurement data: 4.000 sets

**Measure anywhere!** 

The tapered measuring head allows for easy checking of measurement positions. The upright design ensures easy measurement, even on concave surfaces. The measuring aperture is selectable between ø8 mm and ø3 mm according to the sample size (CM-700d only).







#### Optional accessories



### Target Mask ø8 mm (with glass)

#### Easy to operate!

Dedicated buttons for frequently used operations make it easy to call up menus or target colors. The menu-driven display allows anyone to operate the instrument intuitively.

#### Easy-to-read color LCD screen!

Abundant information is displayed in color for easy understanding. Measured colors can also be reproduced as color patches on the color LCD, which is useful to check the level of color difference or to search for colors.



Spectral graph

#### Pseudocolo



OS: Windows® 2000 Professional SP4, Windows® XP Professional SP2, x64 Edition, Windows® Vista Business 32 bit (x86), 64 bit (x64) CPU: Pentium® III 600 MHz equivalent or faster (recommended) Memory: 128 MB or more (256 MB or more recommended) Hard disk: 450 MB or more of free space for installation Display: Resolution: 1024 x 768 dots or more/ 256-bit colors or more Other: CD-ROM drive (required at software installation), USB port (required to connect the protect key), USB port or serial port (required to connect the instrument), Internet Explorer Version. 5.01 or higher installed in the computer.

• Windows<sup>®</sup> is a trademark or registered trademark of Microsoft Corporation in the USA and other countries. • Pentium<sup>®</sup> is a trademark of Intel Corporation in the USA and other countries. • The specifications given here are subject to change without prior notice.



#### Standard accessories



ø3 mm

ø8 mm (w/o plate)

(w/ plate)

(w/o plate)

ø3 mm

White Calibration Cap



Dust Cove Set





Color difference graph

KONICA MINOITA

Color Data Software SpectraMagic<sup>™</sup>NX cm-s100w Optional accessory)

#### Screen creation according to the application

(Version 1.8 or later)

You can create screens suitable for your application by laying out and editing various objects including data lists, spectral graphs, color difference graphs and Pass/Fail displays. You can also create print screens to print inspection reports after measurements.