



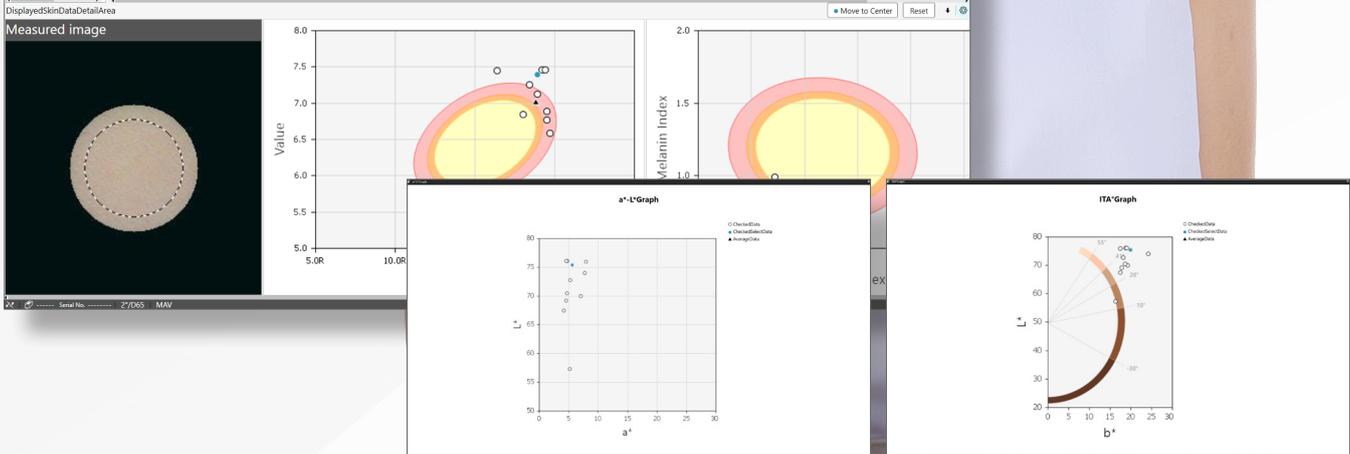
KONICA MINOLTA

Skin Analysis Software CM-SA2

Software for analyzing skin color and melanin index measurements



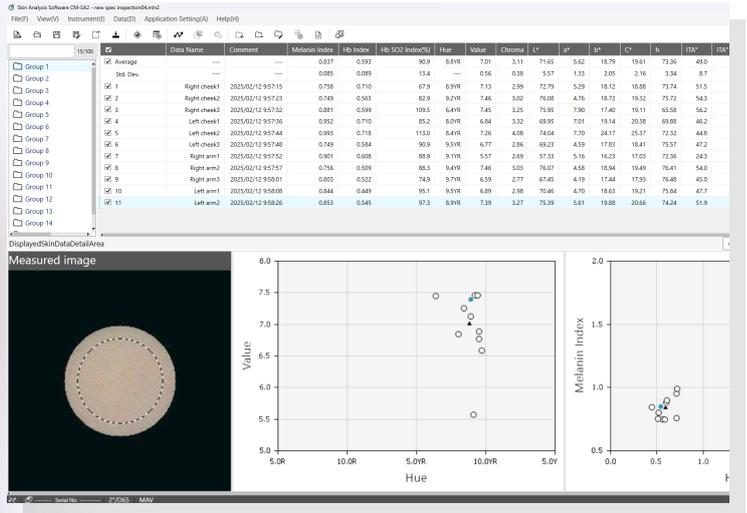
Group	Data Name	Comment	Melanin Index	Hb Index	Hb SCD Index(%)	Hair	Value	Chromes	L*	a*	b*	Ct	B	ITA*	ITA* classification	Observer	Measurement
Group 1	Average	---	0.837	0.593	20.9	8.91R	7.01	3.11	71.65	5.62	18.79	19.63	73.36	29.0	---	---	---
Group 2	Std. Dev.	---	0.085	0.089	13.4	---	0.56	0.38	5.57	1.33	2.05	2.16	3.34	8.7	---	---	---
Group 3	1	Right cheek1	2025/02/12 9:57:15	0.758	0.710	67.9	8.91R	7.13	2.99	72.79	5.29	18.12	18.88	73.74	51.5	Light	21/D65
Group 4	2	Right cheek2	2025/02/12 9:57:23	0.749	0.563	82.9	9.21R	7.46	3.02	76.08	4.76	18.72	19.32	75.72	54.3	Light	21/D65
Group 5	3	Right cheek3	2025/02/12 9:57:32	0.881	0.599	109.5	6.41R	7.45	3.25	75.95	7.90	17.40	19.11	65.58	56.2	Very light	21/D65
Group 6	4	Left cheek1	2025/02/12 9:57:36	0.952	0.710	85.2	8.01R	6.84	3.32	69.95	7.01	19.14	20.38	69.88	46.2	Light	21/D65
Group 7	5	Left cheek2	2025/02/12 9:57:44	0.993	0.718	113.0	8.41R	7.26	4.08	74.04	7.70	24.17	25.37	72.32	44.8	Light	21/D65
Group 8	6	Left cheek3	2025/02/12 9:57:48	0.749	0.584	90.9	9.51R	6.77	2.86	69.23	4.59	17.83	18.41	75.57	47.2	Light	21/D65
Group 9	7	Right arm1	2025/02/12 9:57:52	0.901	0.608	88.9	9.11R	5.57	2.69	57.33	5.16	16.23	17.03	72.36	24.3	Tan	21/D65
Group 10	8	Right arm2	2025/02/12 9:57:57	0.756	0.509	88.3	9.41R	7.46	3.03	76.07	4.58	18.54	19.49	76.41	54.0	Light	21/D65
Group 11	9	Right arm3	2025/02/12 9:58:01	0.803	0.522	74.9	9.71R	6.59	2.77	67.45	4.19	17.44	17.93	76.48	45.0	Light	21/D65
Group 12	10	Left arm1	2025/02/12 9:58:06	0.844	0.449	95.1	9.51R	6.89	2.98	70.46	4.70	18.63	19.21	75.04	47.7	Light	21/D65
Group 13	11	Left arm2	2025/02/12 9:58:26	0.853	0.545	97.3	8.91R	7.39	3.27	75.39	5.61	19.88	20.66	74.24	51.9	Light	21/D65



Solutions for Easy Analysis of Skin

Positioning and Image Saving of Measurement Points via Camera Viewfinder

When used with the CM-17d, the Camera Viewfinder allows you to easily align the measurement position while confirming the area and avoiding moles or spots. Furthermore, the image taken at the time of the measurement will be saved with the measured data, allowing you to verify the measured spot by checking the image.



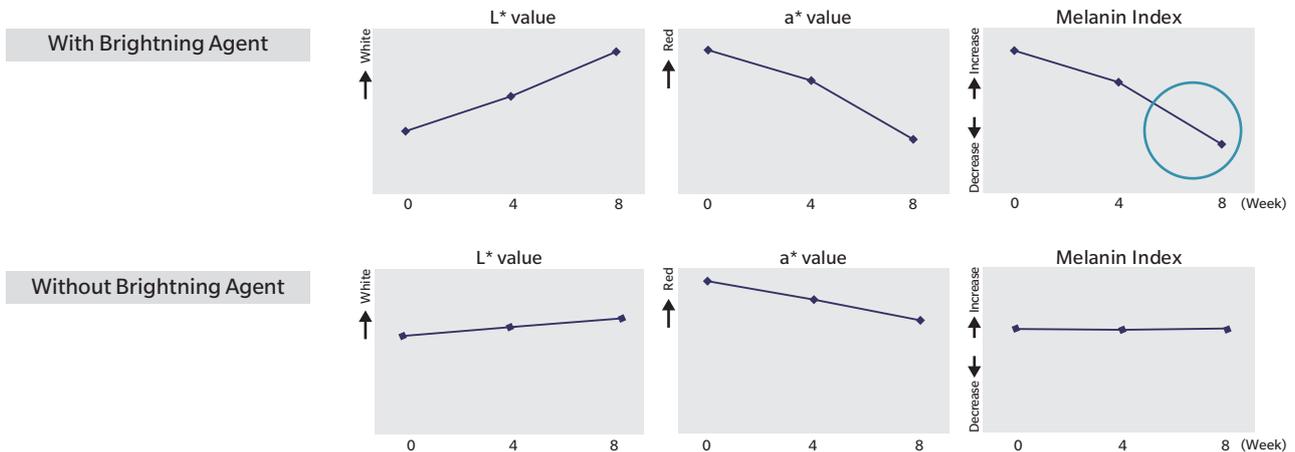
The spectrophotometer must be connected to the CM-SA2 software at the time of measurement to process data and save images. If not connected, these functions are unavailable.

Efficacy Evaluation Based on Skin Color and Melanin Index

Example of Brightening Agent Efficacy Evaluation

L* value: An increase in whiteness, a* value: A decrease in redness. This color information alone cannot determine the efficacy of the whitening agent. Therefore, by looking at the Melanin Index data, it can be seen that the Melanin Index decreases with the use of the brightening agent.

(Example application for efficacy evaluation)



Example of Line Graph Created from Output Data Color Values: L* value, a* value, Melanin Index

Color, Melanin Index and Hb Index

Customizable List Display Screen

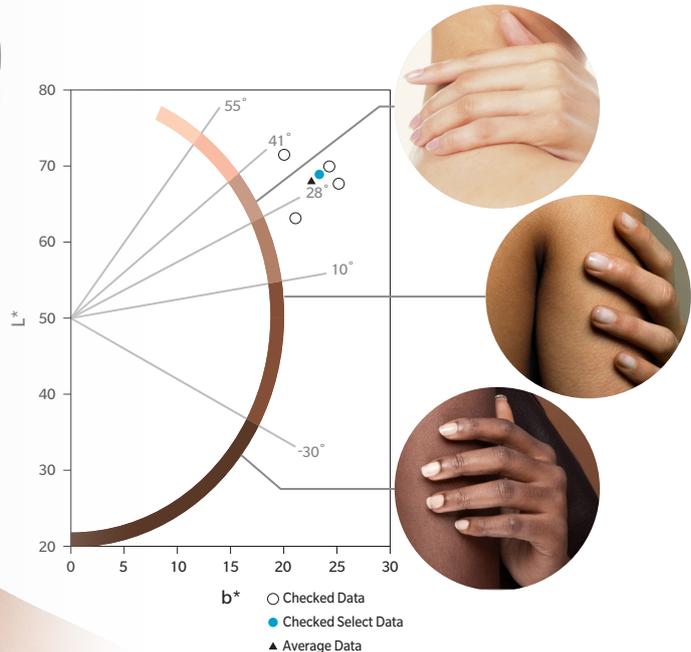
Items such as ITA° and measurement conditions can be easily added or removed, allowing you to organize them into a clear list based on the measurement items. Additionally, the measurement results can be output in CSV text format to be utilized for further analysis or data management using Excel® or other spreadsheet applications.

(Image of the list display screen)

<input checked="" type="checkbox"/>	Data Name	Melanin Index	Hb Index	Hb SO2 Index(%)	Hue	Value	Chroma	L*	a*	b*	C*	h	ITA°	ITA° classifica	Observer/Illuminant	
<input checked="" type="checkbox"/>	Average	---	1.036	1.653	67.1	---	6.53	4.20	66.92	10.89	21.28	23.95	63.25	39.1	Intermediate	---
	Std. Dev.	---	0.110	0.295	7.2	---	0.11	0.59	1.05	2.56	2.03	2.87	3.78	---	---	---
<input checked="" type="checkbox"/>	1	Data #0001	1.032	1.907	73.8	4YR	6.50	4.54	66.64	12.94	21.60	25.17	59.07	38.0	Intermediate	2°/C
<input checked="" type="checkbox"/>	2	Data #0002	0.862	1.308	54.5	6.6YR	6.69	3.30	68.51	7.46	17.89	19.39	67.37	46.5	Light	2°/C
<input checked="" type="checkbox"/>	3	Data #0003	1.067	1.595	71.1	5.5YR	6.54	4.28	66.98	10.77	22.07	24.56	63.98	38.0	Intermediate	2°/C
<input checked="" type="checkbox"/>	4	Data #0004	1.079	1.613	70.0	5.5YR	6.47	4.28	66.28	10.79	22.09	24.59	63.97	36.8	Intermediate	2°/C
<input checked="" type="checkbox"/>	5	Data #0005	0.815	1.355	56.1	6.7YR	6.73	3.30	68.86	7.35	18.07	19.51	67.88	46.8	Light	2°/C
<input checked="" type="checkbox"/>	6	Data #0006	1.061	1.641	71.2	5.4YR	6.51	4.31	66.69	10.95	22.13	24.69	63.67	37.4	Intermediate	2°/C
<input checked="" type="checkbox"/>	7	Data #0007	0.964	1.237	52.5	6.8YR	6.66	3.41	68.17	7.54	18.70	20.16	68.04	44.7	Light	2°/C
<input checked="" type="checkbox"/>	8	Data #0008	1.090	1.691	72.4	5.1YR	6.51	4.45	66.72	11.56	22.52	25.32	62.83	37.0	Intermediate	2°/C
<input checked="" type="checkbox"/>	9	Data #0009	1.185	1.806	74.3	4.6YR	6.57	4.90	67.26	13.24	24.34	27.71	61.46	35.7	Intermediate	2°/C

ITA° Graph for Confirming Skin Color Type

The ITA° (Individual Typology Angle) graph, used for evaluating skin tone and color, can be displayed. The measured data is plotted on the graph, allowing you to easily identify which group it belongs to at a glance.



For applications in the R&D divisions of cosmetics and pharmaceutical companies, skin-related testing organizations, and research institutions such as universities



< Compatible spectrophotometers >

Model ^{(*)1}	CM-17d/CM-16d, CM-700d/CM-600d, CM-2600d/CM-2500d
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< Major specifications >

Skin data display	Melanin Index Hb Index [Total hemoglobin (oxidized + reduced) index] HbSO ₂ Index (%) [Hemoglobin oxygen saturation index (%)] ITA° [Individual Typology Angle] ^{(*)2} , ITA° Classification
Colorimetric value display	L*, a*, b*, C*, h, Munsell value (Hue, Value, Chroma) ^{(*)3}
Graph display	Hue-Value graph, Hb Index-Melanin Index graph, ITA° graph, 2D user-specified axis graph ^{(*)4}
Observer ^{(*)5}	2°, 10°
illuminant ^{(*)5}	C, D65
Data Handling	Saving / reading data in CM-SA2 original format Saving data in text (CSV) format [Melanin Index, Hb Index, Hb SO ₂ Index (%), L*, a*, b*, C*, h, Munsell value (Hue, Value, Chroma), ITA°, Spectral reflectance (400-700 nm) ^{(*)6}]
Display languages	Japanese, English, Chinese (Simplified and Traditional), Korean
Other	Save and display viewfinder images CM-17d ^{(*)7}

< Minimum computing requirements ^{(*)8} >

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

Spectrophotometer must be connected to the CM-SA2 software in order to collect and process data at the time of measurement.

It is not possible to upload measurement data into CM-SA2 software for processing after being collected by the instrument if it was not connected to CM-SA2 software during measurement.

- *1: 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/cmsa2/index.html>
- *2: ITA° values are calculated for a 2° observer and Standard Illuminant D65.
- *3: Munsell data are calculated for 2° observer and Standard Illuminant C.
- *4: Colorimetric values for each axis can be selected from L*, a*, b*, C*, and h.
- *5: Illuminant / Observer can be selected from one of the four conditions. (2°/C, 2°/D65, 10°/C, 10°/D65)
- *6: The spectral reflectance data that are output are the reflectance obtained in SCI (Specular component included) mode.
- *7: CM-17d viewfinder images will be saved only when measurements are taken with Save Viewfinder Image enabled. Saved images are linked with measurement data for later display.
- *8: 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.

- Please do not use this software to assist in cosmetics sales at retail stores.
- This software and the spectrophotometer that can be connected to this software are not medical devices.
The results output by this software cannot be used for diagnosis, treatment, or any other medical purposes.
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- Displays shown are for illustration purposes only.

CM-17d

Ergonomically designed to be easy to grip. It can be used in a wide range of measurement scenarios, including one-handed work, vertical orientation, and measurement of small objects and curved surfaces. Stress-free hardware design includes easy positioning with the camera viewfinder, improved visibility with a slight tilt of the operation screen, and a comfortable workspace with wireless connectivity.*

* Wireless LAN/ Bluetooth module (option) is required.





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.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site



JQA-QMA15888
Design, development, manufacture/
manufacturing management, calibration, and
service of measuring instruments



JQA-E-80027
Design, development,
manufacture, service and sales
of measuring instruments

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