

# Colorimeter SC-700s



## INTRODUCTION

SC-700s is able to measure luminance, color coordinates and correlated color temperature of display products (LCD/ LED/ OLED/ Quantum Dot) fast and accurately. Its wide measuring range 0.001 ~ 20 000 cd/m<sup>2</sup> enables to measure low luminance 0.001 cd/m<sup>2</sup> which makes it an excellent equipment for measuring contrast range of display. In addition, it is light and convenient to use due to all-in-one body design.

## FEATURES

- All-in-one Body Design
  - Convenient to use due to compact size and light weight and easy to mount on the facility
  - Easy to check the measuring values in real time from the display on the probe
  - Portable with rechargeable battery (option)
- High precision and accuracy with fast measuring speed
- Auto Zero Calibration
- Measure the value precisely at low luminance applying noise removal technology (Measuring Range: 0.001 ~ 20 000 cd/m<sup>2</sup>)
- Fast measuring is available by removing time loss from range conversion and continuous measuring is available without time loss applying Switched-Input Technology
- User can set up to 99 calibration channels directly
- Flicker measuring is available (option)

## APPLICATIONS

- Object - To measure luminance, color coordinates and correlated color temperatures of display products (OLED/ LED/ LCD/Quantum Dot) and LED lighting
  - Measurement - Luminance, Chromaticity, Correlated Color Temperature, Flicker
  - Adjustment - White balance, Uniformity, Contrast, Gamma
- ※ Possible to select measurement mode - xyLv, XYZ, u'v'Lv, T Δ uvLv  
 ※ Possible to select measurement unit - cd/m<sup>2</sup>, fL

SPECIFICATION				
Photo detector		Si-Photo diode		
Spectral responsivity		CIE1931 color matching function		
Measurement area		Φ10 mm		
Measurement distance		30 ± 5 mm		
Incidence angle		± 5°		
Display range	Luminance	0.000 1 ~ 20 000 cd/m <sup>2</sup>		
	Chromaticity	4 digit		
Luminance (23 ± 2 °C, 50 ± 10 % R.H)	Measurement range	Normal Mode 0.001 ~ 20 000 cd/m <sup>2</sup>	Fast Mode 0.015 ~ 20 000 cd/m <sup>2</sup>	
	Accuracy (for Std.Cal.LCD)	± 2 % + 0.000 5 cd/m <sup>2</sup>		
	Repeatability (2σ) (for Std.A)	0.01 cd/m <sup>2</sup>	: 1.0 % + 0.000 5 cd/m <sup>2</sup>	
		0.1 cd/m <sup>2</sup>	: 0.5 % + 0.000 5 cd/m <sup>2</sup>	
1 cd/m <sup>2</sup>	: 0.2 % + 0.000 5 cd/m <sup>2</sup>			
10 cd/m <sup>2</sup> ~	: 0.1 % + 0.000 5 cd/m <sup>2</sup>			
Chromaticity (23 ± 2 °C, 50 ± 10 % R.H)	Measurement range	0.1 ~ 20 000 cd/m <sup>2</sup>		
	Accuracy (for Std.Cal.LCD)	± 0.003		
	Repeatability (2σ) (for Std.A)	0.1 cd/m <sup>2</sup>	: 0.002	
1 cd/m <sup>2</sup> ~		: 0.001		
Measurement mode		xyLv, XYZ, u'v'Lv, TΔuvLv		
Measurement speed (for 60 Hz)	Normal Mode			
	0.001 ~ 1.499 cd/m <sup>2</sup>	: 0.6 Samples/s		
	1.5 ~ 14.99 cd/m <sup>2</sup>	: 2.9 Samples/s		
	15 ~ 20 000 cd/m <sup>2</sup>	: 20 Samples/s		
	Fast Mode			
	0.015 ~ 0.099 cd/m <sup>2</sup>	: 1 Samples/s		
0.1 ~ 5.999 cd/m <sup>2</sup>	: 6.7 Samples/s			
6 ~ 20 000 cd/m <sup>2</sup>	: 20 Samples/s			
Measurement frequency (Vertical frequency of Display)		40 ~ 99 Hz (Default : 60 Hz)		
Interface		RS-232C (115,200 bps or below)		
Zero Calibration		Auto		
Operating condition	Temperature	18 ~ 28 °C		
	Humidity	70 % R.H. or less		
Storage condition	Temperature	0 ~ 40 °C		
	Humidity	70 % R.H. or less		
Dimension		40 mm (W) × 40 mm (H) × 230 mm (L)		
Weight		360 g		
Power		DC 5V 1 A Adapter		

DEMENSION	ACCESSORIES & OPTION
<p>(Unit: mm)</p>	<ul style="list-style-type: none"> <li>• <b>ACCESSORIES</b> <ul style="list-style-type: none"> <li>- DC Adaptor</li> <li>- RS-232C Cable</li> <li>- USB to RS-232C Cable</li> <li>- Tripod Plate</li> </ul> </li> <li>• <b>OPTIONAL ACCESSORIES</b> <ul style="list-style-type: none"> <li>- Charge DC Adaptor</li> <li>- Charge Battery Pack</li> </ul> </li> </ul>