

# TOTOKU

3 Megapixel 21.3" Color Display

# CCL354i2

λ-Sentinel II

High Luminance

# 3 Megapixel

**i** model *i2*

Higher Image Quality  
& Total Management



## High-Luminance 3MP color display for diagnostic imaging realizes advanced grayscale display

With high luminance and high contrast, and an integrated color calibration function, our CCL354i2 delivers highly accurate color reproduction faithful to the DICOM GSDF. The CCL354i2 includes a luminance compensation feature for edge to edge consistency, is fully configurable for multi-display applications, and comes standard with hardware-based pivot functionality for fast image drawing in portrait orientation.

21.3"	Digital Input	800 cd/m <sup>2</sup>	750:1	Calibration function	10Bit LUT	Dual Link input	OSD	Luminance Uniformity Correction	Hardware Pivot	LED Indicator	Protective filter
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### New luminance stabilizing system λ-Sentinel II

λ-Sentinel II consists of a luminance sensor and luminance control circuit. The luminance sensor, integrated into the front bezel, consistently monitors and accurately stabilizes luminance on the screen by rapidly communicating with the backlight sensor.

### Remote grayscale check and remote calibration functions

Conformance testing to DICOM GSDF and calibration can be remotely accomplished. These features minimize the burden on display administrators.

\* Optional PM Medivisor software is required.

### Luminance equalizer λ-Uniformity Congruence

Is built in to achieve highly accurate luminance uniformity across the screen. Luminance unevenness is minimized in the final tune-up prior to shipping.

### High luminance, high quality LCD panel

Provides high quality images with maximum luminance of 800 cd/m<sup>2</sup> and contrast ratio of 750:1. Due to its wide, dynamic range, high quality grayscale can also be achieved on this color display, providing versatility for multi-modality workstations.

### Accurate color and grayscale reproduction compliant with DICOM Part 14

By calibrating color temperature, luminance, and gamma characteristics, reproduction of colors faithful to the original and smooth display of grayscale are possible.

### Built-in 10-bit LUT (look up table) for accurate grayscale reproduction

The built-in LUT selects the most appropriate 256 shades of gray (8bit) out of 1021 shades (10bit) to realize finer and smoother grayscale.

### Hardware pivot function for fast drawing in portrait or landscape orientation

Stress-free operation is made possible by fast drawing speed for on-the-fly change to portrait.

### Dual Link DVI input

provides smooth display of motion pictures.

### OSD Information Display

Such information as the display model, total operating time, actual measurement of luminance, and calibration settings can be checked on screen.

### LED indicator to inform of current status

A glance at the LED indicator tells you the display's current operating status.

### Enhanced convenience with utility software :

#### Advanced power saving\*

The backlight dims as the screensaver starts, reducing power consumption and preventing unnecessary deterioration of the backlight.

\* This feature may not be available, depending on the specifications of the graphics card used.

#### Gamma check

18 points of luminance values are measured and plotted into a graph.

#### Ambient light and display luminance measurement

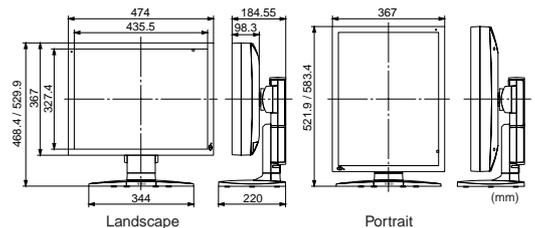
The built-in sensors measure display luminance and ambient illumination.

### Worldwide medical safety standards

This display is certified under various medical safety standards that are much more demanding than those for general-purpose IT equipment.

## Specifications

Model Name	CCL354i2	
LCD Panel	Technology	21.3-inch, TFT Color Active matrix
	Display Area	433.152mm X 324.864mm
	Pixel Pitch	0.2115mm X 0.2115mm
	Contrast Ratio	750 : 1 typ.
	Maximum Luminance	800cd/m <sup>2</sup> typ. (calibrated to 410cd/m <sup>2</sup> and 300cd/m <sup>2</sup> by factory default)
Visual Performance	Viewing Angle	170° vertical and horizontal
	Available Resolution	USTEXT, 640 X 480 (VGA), 800 X 600 (SVGA), 1024 X 768 (XGA), 2048 X 1536 (QXGA)
	Grayscale	10bit(1021) grayscale to 8bit(256) grayscale
Input Signal	Color display	Full color (16.77million colors)
	Input Sync Signal	DVI 1.0 compliant
Input Power Supply	Plug and Play	DDC2B compliant
	Input	AC adapter 100V - 240V (±10%) 50/60Hz
Features	Maximum Power Consumption	120W typ. (with power management feature)
	Calibration Control	Luminance, Gamma, Color temp., Capability to save 3 sets of LUT settings. (An optional calibration kit is required.)
	OSD Information Display	Model name, Serial No., Total operating time, Calibration settings (Operating time from Last Calibration, Luminance, Gamma, Color temp, etc.), Current luminance, etc.
	USB Hub	USB Rev. 2.0 compliant, Self-powered USB upstream connector (x1), USB downstream connector (x2)
Approvals	Other Features	Luminance Uniformity Correction, Hardware Pivot, LED indicator
	UL60601-1, CSA C22.2 No.601.1, MDD/CE, FCC-B, VCCI-B, (FDA510(k):pending)	
Physical Characteristics	Dimensions (incl. tilt stand)	Landscape : 474.0 (W) X 468.4 / 529.9 (H) X 220.0 (D) mm Portrait : 367.0 (W) X 521.9 / 583.4 (H) X 220.0 (D) mm
	Weight	Net: approx. 11.5kg, Without tilstand: approx. 7.3kg
	Tilt stand	Tilt, Swivel, Portrait / Landscape
	Mount	100mm VESA mounting
	Security Slot	On the back of the panel and the tilt stand
Accessories	Protective Filter	Antireflection-coated
	AC adapter, Power cord(3P), DVI cable, USB cable, Operation manual	



TOTOKU has obtained ISO14001 and ISO9001/ISO13485 certification which are international standards concerning environment management and quality control respectively.



## Safety Precautions

Please read the user's manual for safe and proper use.

**Do not expose the product to dust, moisture, steam, or oily smoke. It could cause fire, electric shock, or a failure.**

# TOTOKU

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Additional product information is available at <http://www.totoku.com/display/>

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