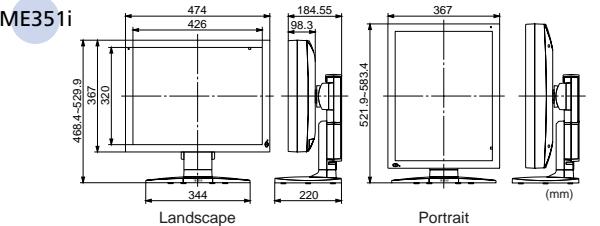
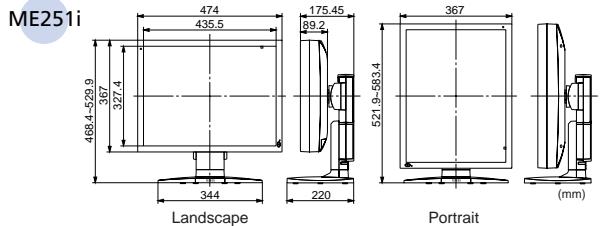


	2 Megapixel	3 Megapixel
Model Name	ME251i/C (Clear-base), ME251i/B (Blue-base)	ME351i
LCD	Technology 21.3-inch, TFT Monochrome, Active matrix Display Area 432mm X 324mm Pixel Pitch 0.270mm X 0.270mm Contrast Ratio 700:1 (Typ.) Maximum Luminance 1500cd/m <sup>2</sup> (Typ.), (calibrated to 410cd/m <sup>2</sup> by factory default) Viewing Angle 170° vertical and horizontal	20.8-inch, TFT Monochrome, Active matrix Display Area 423.9mm X 318.0mm Pixel Pitch 0.207mm X 0.207mm Contrast Ratio 900:1 (Typ.) Maximum Luminance 700cd/m <sup>2</sup> (Typ.), (calibrated to 410cd/m <sup>2</sup> by factory default) Viewing Angle ←
Visual Performance	Available Resolution USTEXT, 640 X 480 (VGA), 800 X 600 (SVGA), 1024 X 768 (XGA), 1280 X 1024 (SXGA), 1600 X 1200 (UXGA) Grayscale 11.9bit (3826-step gradation) to 256 gradation display When linked with Viewer, simultaneous display of 10bit (1024) grayscale is possible.	USTEXT, 640 X 480 (VGA), 800 X 600 (SVGA), 1024 X 768 (XGA), 2048 X 1536 (QXGA) 11.9bit (3826-step gradation) to 256 gradation display When linked with Viewer, simultaneous display of 11bit (2048) grayscale is possible.
Input Signal	Input Sync Signal DVI 1.0 compliant Plug-&-Play DDC2B compliant	← ←
Input Power Supply	Input AC adapter 100V ~ 240V±10%, 50/60Hz Maximum Power Consumption 85W Typical (with power management feature)	← 80W Typical (with power management feature)
Features	Calibration Control Luminance, Gamma, Capability of saving 3 sets of LUT settings (The calibration kit is required.) OSD Information Display Model name, Serial No., Total operating time, Calibration settings (Operating time from Last Calibration, Luminance, Gamma, etc.), Current luminance, etc. USB Hub USB Rev. 2.0 compliant, Bus-powered USB upstream connector (x1), USB downstream connector (x2)	← ← ←
Approvals	Medical Safety UL60601-1, CSA C22.2 N601.1, MDD/CE, FDA510(k) EMI FCC-B, VCCI-B, BSMI*, MIC, CCC* (*: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. 11.6kg, Without tiltstand: approx. 7.4kg Tilt stand Tilt, Swivel, Height adjustment, Portrait / Landscape Mount 100mm VESA mounting Security Slot Antitheft security slot (Panel and tilt stand) Protective Filter Antireflection-coated protective filter	← ← ← ← ←
Accessories	AC adapter, Power cord(3P), DVI cable, Serial cable, USB cable, Utility software, Operation manual	←



## LV Series

Totoku's lineup of PCI Express bus graphics cards enable smooth transfer of images whose size can be expected to grow even bigger in the future. (Optional.)

Model Name	LV22P2	LV22E1	LV32P1	LV32P4	LV32E1	LV32E2
Photo						
Max. resolution	1600 X 1200 Pixels			2048 X 1536 Pixels		
BUS	PCI 32bit(33MHz)	PCI Express X16	PCI 64bit(66MHz)/32bit(33MHz)	32bit(33MHz)	PCI Express X16	PCI Express X16
Outputs	DVI X2 (Use the supplied split cable.)			DVI X2		
Video memory	64MB	64MB	256MB	128MB	128MB	128MB
Operating system	XP/2000/NT 4.0 (SP6)	XP/2000	XP/2000/NT 4.0 (SP6)	XP/2000	XP/2000	XP/2000
Max. power consumption	11.75W	21W	35W	15W	70W	27W
Dimensions	168 X 65mm	168 X 69mm	190 X 107mm	133 X 65mm	198 X 111mm	163 X 112mm
Compatible models	ME251i, CCL250i	ME351i, CCL350i		ME351i, CCL350i, ME251i, CCL250i		



TOTOKU has obtained ISO14001 and ISO9001 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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# TOTOKU

Flat Display Systems for Medical Imaging

2 Megapixel Monochrome Display

**ME251i**  
2 Megapixel

3 Megapixel Monochrome Display

**ME351i**  
3 Megapixel

Medivisor®

*ME Series i model*  
Integration of Hardware and Software

*Higher Image Quality & Simpler Maintenance*



- Enhanced luminance stability with λ-Sentinel II
- Easy evaluation of conformity to DICOM GSDF with the use of PM Medivisor
- High luminance, high contrast, and wide viewing angle

ME Series *i* model

## Higher Image Quality & Simpler Maintenance

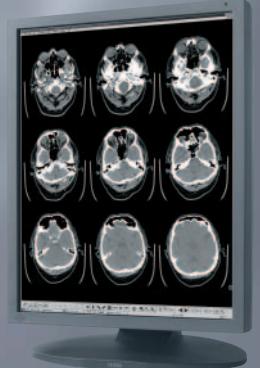
An ever-increasing attention is being paid to the importance of maintaining display accuracy on medical imaging displays. As a result, more facilities and organizations are now performing the acceptance test upon installation, and the periodical constancy test to monitor display status. Needless to mention that medical displays are expected to offer high display accuracy which they are also required to maintain for long periods of time. Thus, the need for means of monitoring and verifying accuracy is growing.

The "ME Series i models" are the products that meet such demands in combination with luminance stabilizing system  $\lambda$ -Sentinel II and display accuracy monitoring software Medivisor.

2 Megapixel  
Monochrome  
Display

Super-High Luminance  
1500cd/m<sup>2</sup>  
and Longer Lifetime

2 Megapixel  
21.3" Monochrome LCD  
**21.3"** Mono chrome Digital 1200 x 1600 1500 cd/m<sup>2</sup>  
Contrast 700:1 10bit display OSD VESA mounting Protective filter



Long Life  
2 Megapixel Monochrome Display

**ME251i**  
ME251i/C (clear base)  
ME251i/B (blue base)

**$\lambda$ -Sentinel II**

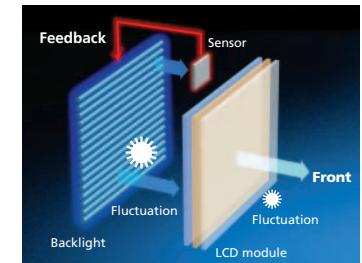
### Advanced luminance stabilizing system

#### Features

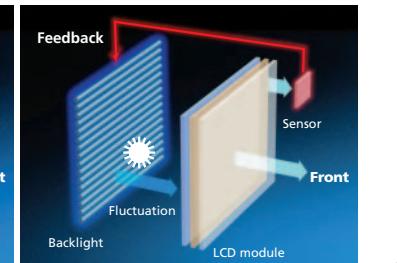
- Intermediate luminance can be measured and in combination with PM Medivisor, conformity to DICOM GSDF can be evaluated.
- The LCD module realizes highly accurate luminance control, taking into account luminance fluctuation.
- The display alone is capable of measuring and showing the current luminance on screen.

$\lambda$ -Sentinel II consists of a luminance sensor and a luminance control circuit. The luminance sensor is placed in front of the panel surface and stabilizes luminance by continuous monitoring, and sending feedback to the control circuit.

Our conventional  $\lambda$ -Sentinel



$\lambda$ -Sentinel II



#### LED indicator

The display status can be checked easily.

Luminance is being stabilized.



Luminance is being adjusted. Wait until the LED goes off.



The display is in power save mode.



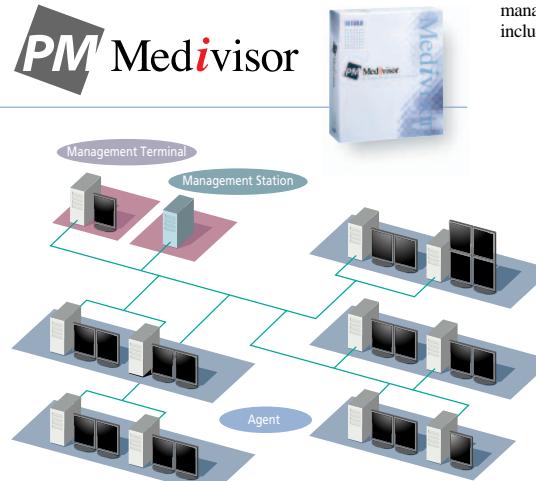
An error is detected.



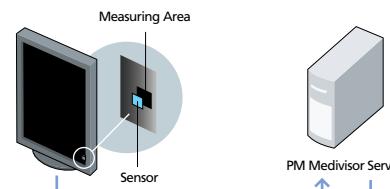
### Display management software Medivisor Series (optional)

#### Display performance monitoring software

**PM** Medivisor



PM Medivisor analyzes the luminance data measured by the luminance sensor according to AAPM TG-18 to monitor and maintain display accuracy. It also manages calibration scheduling and history for each display on the network, including detailed display information.



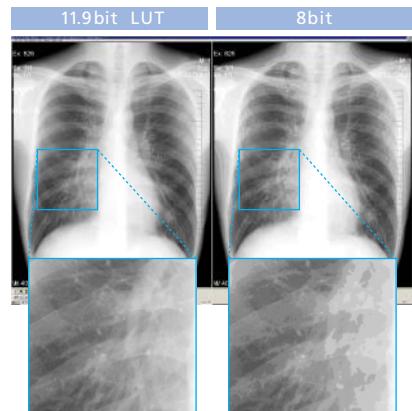
- analyzes luminance data according to AAPM TG-18 and verifies conformity to DICOM GSDF.
- monitors luminance constantly and notifies the administrator when the current luminance is deviated from the setting or when the display configuration changes.
- reports various notices via e-mail and generates calibration information in PDF format.

TOTOKU's unique LCD drive technology realizes high image quality and usability

#### 2048 simultaneous shades of gray

2048 simultaneous shades of gray (11 bit) are displayable in the viewer; smoother and subtle expression of grayscale is possible.

\* ME251i displays 1024 simultaneous shades of gray (10 bit).  
\* 8 bit viewers display 256 simultaneous shades of gray out of 3826 shades (11.9 bit).



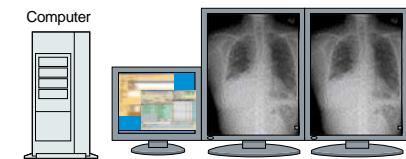
\* The images shown are for illustrative purposes.

#### Hardware pivot function

With the hardware pivot function built in, ME351i is capable of switching to portrait orientation quicker than when using pivot software.

#### Color/Monochrome Conversion Function

The built-in LUT (Look-up Table) converts color RGB input into monochrome output. This provides sharp and crisp grayscale images on systems that support color video signals and realizes the multi-display environment where color and monochrome displays coexist.



#### High luminance, high contrast, & wide viewing angle

TOTOKU's LCD drive technology has successfully brought about a much higher image quality and the best performance in the LCD panel; the world's highest-class luminance, contrast, and broadness of viewing angle.

#### Reliable products from advanced production lines

Over 30 years of experience in manufacturing displays backs up our confidence in providing reliable and dependable products.

#### Pre-calibrated

Displays are shipped calibrated to the DICOM GSDF standard and ready for use.

#### Color temperature control (optional)

A high-definition spectrophotometer is used for the management of color temperature data of displays and the pairing of displays with similar tones to minimize any disturbing difference in tone when placed side by side.



3 Megapixel  
Monochrome Display

Excellent grayscale display  
of 2048 simultaneous shades  
with high-contrast panel

3 Megapixel  
20.8" Monochrome LCD

**20.8"** Mono chrome Digital 1536 x 2048 700 cd/m<sup>2</sup>  
Contrast 900:1 11bit display VESA mounting Hardware Pivot Protective filter

#### OSD



3 Megapixel Monochrome Display

**ME351i**