

Optik View

# 1.3

## MP Medical Monochrome Display

*For X-ray*  
**MDM1900-1NR**



**19"**

**10bit  
LUT**

**1280  
x  
1024**

**High  
luminance  
500cd/m<sup>2</sup>**

**Contrast  
800:1**

**Preset  
Gamma  
Setting**

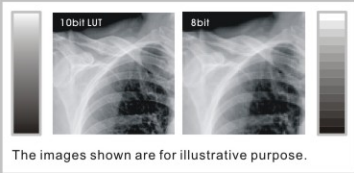
# 1.3MP Medical Monochrome Display | MDM1900-1NR

Multiple interfaces input for imaging modalities such as CT and MR.



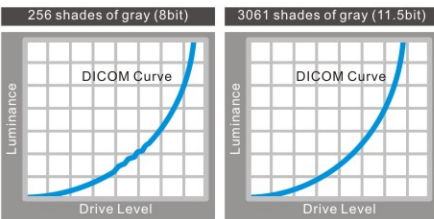
## Built-in LUT (Look-up Table) to reproduce finest grayscale

Consumer/Commercial grade LCD displays are capable of displaying 256 shades of gray; however the precision of the image is marginal. These displays are built with a completely different concept / design that render their use and cost in-line with what the office/home environments require. OPTIK VIEW Medical Displays are designed for an entirely different application and the images that they display are in compliance with governing groups (such as DICOM, NEMA) that assure their accuracy. We do this by using custom LUT that allow OPTIK VIEW products to display DICOM compliant 8-10 bit images with precision grayscale accuracy.



The images shown are for illustrative purpose.

## DICOM GSDF compliant curves according to the number of simultaneously available gray shades.



\* Images are provided for explanatory purposes only.

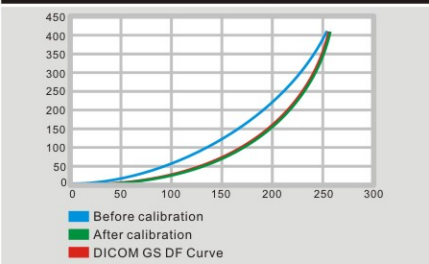
## Calibration function to accurately adjust gamma, color temperature, and luminance

Medical image displays are commonly required to display grayscale according to the Grayscale Standard DisplayFunction (GSDF) defined by DICOM Part 14. The calibration function creates the optimum conditions for a medical imaging display by adjusting luminance levels, color temperature (Color Monitors Only), and grayscale characteristics to achieve DICOM GSDF compliant grayscale output.

### How it works

The luminance for each driving level is corrected such that the resulting curve matches the DICOM GSDF achieving smooth grayscale output. The adjusted driving levels are then stored in the monitors drive level LUT (Look-up Table) so displayed images are rendered according to the calibrated drive levels.

### Effects before and after calibration and comparison with DICOM GSDF



Graph is for explanatory purpose only.

## Pairing of Displays

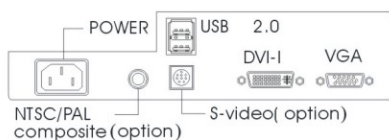


We offer display pairing service to assure same color / look on a dual/quad head configuration. This will optimize your viewing of multiply displays.

\*NOTE: This service MUST be requested before shipping.

## Multiple Interface

Support for digital and analog interfaces.



## High Speed Graphic Performance

Robust 8 and 10 bit graphic board, designed for high image precision, can support dual DVI-I inputs up to 5-MP (Dual head) diagnostic displays.



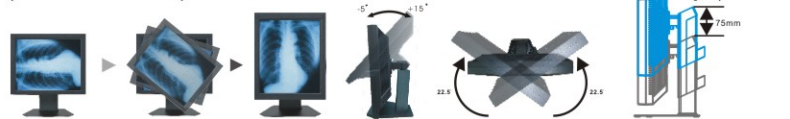
## Photo Sensor achieved Stable and Consistent Image

- Attachable to monitor bezel with a USB connector.
- Calibration to DICOM Part14 standard.
- Remote calibration with network QC management software.



## Ergonomic Design

The screen can be easily adjusted to the ideal viewing position with height adjustable stand, 15° tilt, 45° swivel, and support for both portrait and landscape modes.



LCD Type	IPS / 256 grayscale
Native Resolution	1280*1024/1024*1280
Pixel Pitch	0.294(H)*0.294(V)mm
Active Screen Area	376.3(H)*301.1(V)mm
Contrast	800:1 (typ)
Luminance(Typical)	500 cd/m <sup>2</sup> calibrated, 1000cd/m <sup>2</sup> max
Viewing Angle(H/V)	85/85, 85/85, (Horizontal/Vertical)
LUT	8-bit/10-bit LUT
Backlight Lamp Life	50K hours
Plug & Play	Support VESA DDC2B and DDC/CI; Pc2001 compliant
Input Signal	DVI-I
Sync Input	Separate sync(HSYNC/VSYNC); composite sync, Sync on Green (activated through on-screen display)
USB 2.0	USB hub with 1 up and 2 down stream port
ALS(Auto Luminance Stabilizer)	Yes
Power Supply	Auto-ranging, 90 to 265 VAC; internal power supply
Input Power	100~240 VAC
	50~60Hz
Operating Temperature	0°C to 35°C (32°F to 95°F)
Mount	VESA 100 mm
Gamma Preset	Gamma 1.8, 2.0, 2.2; DICOM part 14
Accessories	Graphic Card / PhotoSensor

## Worldwide medical safety standard approval

All display meets the strictest medical, safety and EMC emissions standards including EN60601-1, CE, CB, CSA C22.2 No.601-1, FCC, FDA510(K), AAPM-TG18.



## ISO 13485 Certification

Our facilities are certified to ISO9001 and ISO13485 quality system controls. We have the ability to consistently meet our customer requirements for these devices and services.

