

## **Diamondtron® RDF225WG** Ultra-wide color gamut CRT monitor with SpectraView™ WG Color Calibration Solution

**Mitsubishi Diamondtron CRT technology.**

**The ultimate color performance for high-end professional users.**

For high-end, professional applications such as medical imaging and publishing, a wide and accurate color spectrum is vital in achieving your desired output. Mitsubishi has furthered the range and depth of CRT display color reproduction with its ultra-wide color gamut 22" (20" viewable image size) Diamondtron RDF225WG monitor. With this revolutionary display, it's now a snap to realize high-performance color reproduction for even your most demanding applications.

**The ultimate in color performance.** Recent technology advances in digital image acquisition, color-processing systems, color printers and other photographic I/O devices have been nothing short of remarkable. In addition to startling resolutions, the range and depth of color reproduction also has shown significant improvements. A standardized color space promises the benefit of guaranteed color reproduction across all digital platforms and devices from the point of acquisition to the point of delivery, over a wide range of colors. Traditionally, a standardized color space with a wide color gamut required sophisticated hardware technology and was generally found only in professional DTP, pre-press, color proof-matching or color management system environments.

There have been alternative color spaces with reduced palettes, which offer compatibility to a wide range of consumer devices. The most widespread is called sRGB, which is a color space standard and well-promoted and widespread in consumer electronic applications, such as digital cameras, PC operating systems, PC color monitors and desktop printers. Adobe® RGB is an extended color space, promoted by Adobe, which over time has become a de-facto standard in the professional color processing market. Through its widespread adoption, compliance with the Adobe RGB color space ensures cross-compatibility with a wide range of high-end professional digital color devices, cameras,

**Achieves 97.6% of Adobe® RGB color space for accurate, consistent and repeatable color performance**



scanners, digital transmission and printing process systems. However, due to the onerous requirements, compliance has been virtually impossible for most electronic displays; the digital chain has been incomplete.

The RDF225WG represents an exciting development in material science in bringing an Adobe RGB-compliant display successfully to market. The key materials-science innovation has been the development of a new high-persistence phosphor, which can extend the display color gamut to a close approximation of the Adobe RGB color space. With its improved CRT phosphor, the RDF225WG extends the color space to 97.6% of Adobe RGB for more accurate, consistent and repeatable color performance compared to conventional CRT displays that cover only 70% of this industry standard.

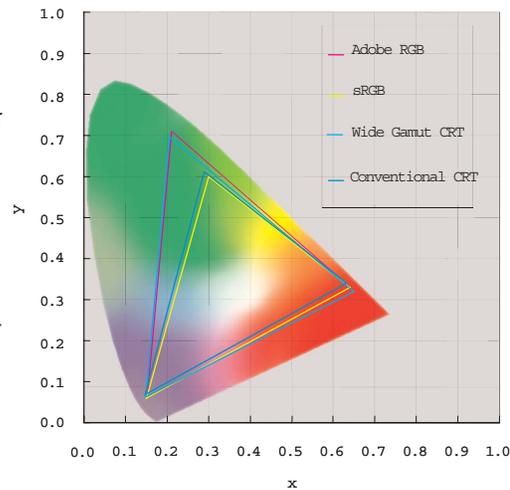
**Flat-out better screen performance.** Using the latest in advanced flat-screen technology, the RDF225WG delivers the ultimate screen performance to your desktop, enabling you to develop stunning creations without having to second-guess

what you see on-screen. While reducing eyestrain and fatigue, flat screens allow you to focus on your screen without distractions such as glare and reflection. You'll also realize benefits such as greater image sharpness for improved clarity, precision and accuracy, and a higher contrast ratio for enhanced legibility and fine detail. All of these advantages add up to a more energized visual experience.

Diamondtron, the latest generation of flat aperture grille CRT technology, provides exceptional performance with unprecedented focus and contrast and a virtually flat image that reduces distortion and glare. This CRT technology also delivers better brightness uniformity for consistent, true-to-life images and improved color saturation. With this kind of performance, what you see on-screen is as life-like as what you see on your printed output. Further, superb frequencies allow for better resolutions and one of the industry's highest refresh rates.

**Enhanced clarity and focus.** The RDF225WG features the Mitsubishi U-NX electron gun that includes an additional lens to improve the monitors' focus and convergence. An electron beam, which is projected through the multiple lenses and onto the viewable image area, produces a small beam spot, achieving better focus and clarity at higher resolutions. The larger main lens reduces distortion and potential image halo effect.

Furthermore, using GlobalSync® technology, the RDF225WG can counter cross-talk between monitors and the earth's magnetic field, using



Comparison of color space using CIE chart.

its exclusive magnetic sensors to correct mis-convergence and deliver consistent brightness uniformity.

**Customize your visual experience.** The RDF225WG features an on-screen display (OSD), allowing you to make precise monitor adjustments that match your specific preferences. A touch of the up-front controls activates the OSD, giving

you access to a comprehensive set of adjustments and an expanded display mode with monitor information such as vertical refresh rate and horizontal frequency. With its multitude of presets, the monitor is ready to go right out of the box.

**Maximize your screen control.** Our exclusive NaViSet™ software (available by download) offers an intuitive graphical user interface that allows you to adjust OSD display settings via mouse and keyboard instead of using the monitor's up-front buttons. This software provides animated graphics and test patterns to help guide you through adjustments.

For an unprecedented level of control, NaViSet Administrator software for IT professionals (available upon request) contains Windows® Management Instrumentation™ (WMI) for remote control and diagnostics maintenance for all installed RDF225WG units. This software provides IT personnel remote access to the monitor and its settings without disrupting the user.

All of these control capabilities are made possible using the advanced remote diagnostics and remote control capabilities of the Display Data

Channel/Command Interface (DDC/CI). This allows control commands to be sent directly to the monitor by the local system or remotely over an existing network (LAN) by a system administrator. In order to take full advantage of these benefits, users must use a DDC/CI-compatible graphics card and be running Windows 2000/XP.

**User-friendly, minimalist design.** In developing the RDF225WG, our engineers focused on its smooth integration into work and home environments. Featuring reduced cabinet size and bezel width as well as recessed cable connections, this monitor has been designed for easy, flexible integration into a variety of surroundings, including cramped areas and ergonomically challenged work spaces. This user-friendly design enables you to focus more on what is on-screen, enhancing not only your visual experience but your overall productivity. ErgoDesign® enhancements, which include a tilt/swivel base that easily adjusts to each user's preferred angle of vision, further increase comfort, productivity and ease of use.

**Quality and service you can count on.** You can rest easy knowing that NEC-Mitsubishi is available 24 hours a day, 7 days a week for technical support, and a 3-year limited warranty guarantees your satisfaction.

## **SpectraView WG Color Calibration Solution**

**Unrivaled color performance for sophisticated professionals.** In today's graphics environments, color accuracy is critical. To help meet the needs of even the most demanding creative professional, the RDF225WG ships with the SpectraView WG Color Calibration Solution, which delivers superior display and color performance to your desktop. In addition to the flat-screen CRT monitor, this state-of-the-art calibration solution includes intuitive software, a calibrator and hood.

**Simple measurements in no time.** SpectraView WG achieves precise color calibration with actual on-screen color measurements using a tri-stimulus colorimeter and custom software that provide the necessary link between your input and output devices. Adjustments are made directly to the monitor electronics by way of the DDC/CI communications channel. This state-of-the-art digital technology provides the ability to control the RGB gains, resulting in better luminance, black colors and, overall, more accurate calibration when compared to systems that only use the video card to make adjustments. The monitor's digital control also delivers quicker measurement times, more frequent calibration routines and a reduced chance for human error when making adjustments to screen settings. Using three 24-bit analog-to-digital converters, SpectraView WG measures color at five measurements per second either at absolute white or black. These phased-lock measurements are achieved at a rate that is up to 2-5 times faster than other competitive desktop color sensors.

**Reliable color-matching.** Because each device displays color differently, what you see on screen may vary significantly from what you see in your output, resulting in expensive and time-consuming guesswork. The SpectraView WG system accurately measures the color on your display and seamlessly creates a reusable ICC profile of that monitor's color to provide consistency. Furthermore, the system assists in matching colors from monitor-to-monitor as well as to peripheral devices such as printers and scanners.

**Advanced, accurate light measurement.** SpectraView WG quickly and easily calculates optimal display characteristics. Similar to more expensive light measurement instruments, the calibrator features three color sensors. Compared to single-sensor models that only measure overall light intensity, this results in more accurate calibration because the display's individual red, green and blue phosphors are measured sepa-

## **Features and Benefits**

**Ultra-wide color gamut CRT** achieves 97.6% of the Adobe RGB, 93.3% of NTSC color space and 99.9% SWOP\*

**Diamondtron flat aperture grille CRT** delivers exceptional performance with unprecedented brightness, contrast and focus

**SpectraView WG Color Calibration Solution**, which includes software, a calibrator, and hood, achieves accurate, consistent and repeatable color performance

**Mitsubishi's digital signal processing control system** enables precise adjustments for excellent image quality, easy setup and pinpoint control

**Mitsubishi's U-NX electron gun** improves the monitor's focus, clarity and convergence at higher resolutions

**Easy-on-the-eyes screen surface** virtually eliminates reflected light, while maintaining the screen's clarity

**NaViSet software** allows control commands to be sent directly to the monitor by the local system or remotely over an existing network by a system administrator

**Asset management capability** enables communication of monitor data to a central system via asset management software

**NEC-Mitsubishi's quality and reliability** provide peace of mind with a 3-year limited parts and labor warranty and 24/7 customer service and technical support

\* Specification for Web Offset Publications (standard of U.S. Printing Association)

# Diamondtron RDF225WG Specifications



rately. The software analyzes the color read by the calibrator, adjusts and calculates display gamma and white point values and corrects these figures to accommodate current ambient light.

**Wide compatibility for widespread color performance.** Cross-platform color-matching capability ensures the RDF225WG can be matched on PC and Mac® computers. Plus, you can color conference with confidence by sending files electronically between remote locations for maximum efficiency and convenience.

## SpectraView Specifications

<b>Accuracy</b>	Color (x,y): +/- 0.002 Luminance (Y): +/- 4%, +/- 1 digit
<b>Repeatability (same sensor)</b>	Color (x,y): 1%, +/- 1 digit Luminance (Y): +/- 0.3%, +/- 1 digit
<b>Dynamic Range (luminance)</b>	0.01-250 cd/m <sup>2</sup>
<b>Measurement Speed</b>	5 per second
<b>Sensor</b>	Tri-stimulus

## SpectraView Requirements

<b>Operating System</b>	Windows XP, 2000, Mac 10.2
<b>Hardware Connections</b>	15-pin mini D-sub video connector
<b>Graphics Card Color Depth</b>	16-bit or higher

<b>Model</b>	Diamondtron RDF225WG	
<b>Display</b>	Viewable Image Size Diagonal	20" 22" CRT
<b>CRT Type</b>	0.24 ultra-wide-color gamut flat aperture grille CRT	
<b>Luminance (peak)</b>	100 cd/m <sup>2</sup> @ 9300K 80 cd/m <sup>2</sup> @ 6500K 70 cd/m <sup>2</sup> @ 5000K	
<b>Color Coordinates</b>	Red: X = 0.650, Y = 0.321 Green: X = 0.208, Y = 0.690 Blue: X = 0.151, Y = 0.070	
<b>Color Gamut</b>	97.6% of Adobe RGB, 93.3% of NTSC, 99.9% SWOP (CIE L*A*B*)	
<b>Synchronization Range</b>	Horizontal Vertical	30-140 kHz 50-160 Hz
<b>Pixel Clock</b>	390 MHz (max)	
<b>Resolutions Supported</b>	640 x 480 @ 50-160 Hz 800 x 600 @ 50-160 Hz 1024 x 768 @ 50-160 Hz 1280 x 1024 @ 50-127 Hz 1600 x 1200 @ 50-109 Hz 1800 x 1350 @ 50-98 Hz 1800 x 1440 @ 50-92 Hz 1856 x 1392 @ 50-95 Hz 1920 x 1440 @ 50-92 Hz 2048 x 1536 @ 50-86 Hz	
<b>Maximum Resolution</b> <b>Recommended Resolution</b>	2048 x 1536 @ 86 Hz 1600 x 1200 @ 85 Hz	
<b>Additional Features</b>	U-NX gun, wide-color-gamut phosphor, dual inputs, on-screen controls, OptiClear, GlobalSync, Plug 'n Play protocol (DDC2Bi, DDC/CI), 6 languages, factory reset, sizing and positioning, color temperature, pincushion, tilt, rotation, trapezoid, parallelogram, moire cancellation, convergence control, degauss, contrast, constant brightness, pincushion balance, corner purity adjustments, focus adjustments, AccuColor controls, digital dynamic convergence	
<b>Display Colors</b>	Unlimited	
<b>Power Supply</b>	100-120/220-240 VAC, 50-60 Hz	
<b>Power Consumption (typ.)</b>	135W	
<b>USB Capability</b>	No	
<b>Input</b>	Dual, two 15-pin D-sub connectors	
<b>Dimensions (W x H x D)</b>	19.5 x 19.1 x 18.8 in. / 495 x 486 x 477mm	
<b>Net Weight</b>	64.6 lbs / 29.3 kg	
<b>Gross Weight</b>	77.2 lbs / 35 kg	
<b>Signal Cable</b>	15-pin D-sub	
<b>Regulatory Approvals</b>	UL (UL1950), C-UL (CSA-22.2 No. 950-1995), VCCI-A, FCC-A, DHHS, ENERGY STAR	
<b>Limited Warranty</b>	3 year CRT, parts and labor	
<b>Technical Support</b>	24 hours / 7 days	

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