

DS2190P **High Resolution** **Portrait**

Medical 1k Line Diagnostic 90 Degree with 36mm Optics

- 21 Inch Flat Square
- Digital Controlled
- 215MHz Bandwidth
- 300x400 mm Screen
- 80fL Light Output (P104)
- 1600 x 1280 Pixels
- RS-232 Service Port
- Custom Electron Optics
- Anti-Reflective Panel



Ultra High Contrast 1k Line Display

The Clinton Electronics Digital Series DS2190P monitor is a high-resolution display controlled by an embedded Microprocessor and custom ASIC. The DS2190P is a multi-sync with a range from VGA to 1280 lines. The DS2190P takes the proven digital architecture of the DS Series and marries it to the electron optics and 90-degree deflection found in 2.5k line displays. The added capability of the 36mm optics is realized with the latest in high performance video amplifiers. The 215MHz video bandwidth drives the CRT with slew rates that deliver sharp edge details, the key to maximizing tonal and spatial response by maintaining a narrow pixel column.

The higher contrast modulation with the 36mm optics and fast video complement the latest in Direct Radiology imaging. Other digital modalities and scanned film will benefit from the sharp high-resolution images and dynamic range provided. The standard Anti-Reflective panel further enhances the important lower gray tones.

The DS2190P was designed as a total package from the CRT to the supporting electronics, a capability Clinton Electronics can uniquely provide. Features carried forward from the 1k line clinical DS Series are the eleven On-Screen user controls, software lockout, Serial comm port for both service and the optional True Image Luminance Subsystem are only a few. A long life dispenser cathode and conservative CRT biasing provide stable consistent performance over the life of the DS2190P.

When combined with a dualhead medical graphics card, the DS2190P is a major step in reducing the per head cost of medical workstations. The attributes that make our four and five Megapixel displays the industry leader in contrast modulation are here in the DS2190P. A well-conceived balance of design and performance focused on softcopy imaging.

SPECIFICATIONS

DS2190P High Resolution Portrait

Basic Specifications:

Size: 21" Diagonal
 Screen Size: 12x16 Inches
 Active Video: 289 x 387 mm
 11.4 x15.25 Inches
 Deflection: 90 Degrees
 Phosphor: P45 Standard/P104 Optional
 Transmittance: 50% with 90% Panel (STD)
 33% with 60% Panel (OPT)

Luminance with P45 Phosphor:
 Output at peak: 65 fL (90% Panel) / 223 cd/m²
 Optional: 45 fL (60% Panel) / 155 cd/m²
 Black Level: 0.03 fL (Nominal) / 0.1 cd/m²
 Resolvable Pixels @ Cm=50%: >1600x1280

Inputs:

Video: 0.7v p-p Positive
 Termination: 75 ohms
 Sync: TTL, Separate

Power Requirements:

Volts: 85 – 265 VAC, Auto-range
 Frequency: 47 – 63 Hz
 Watts: 150 - Watts Peak

Scan Rates: Horizontal: 31KHz to 124KHz
 Vertical: 50Hz to 150Hz

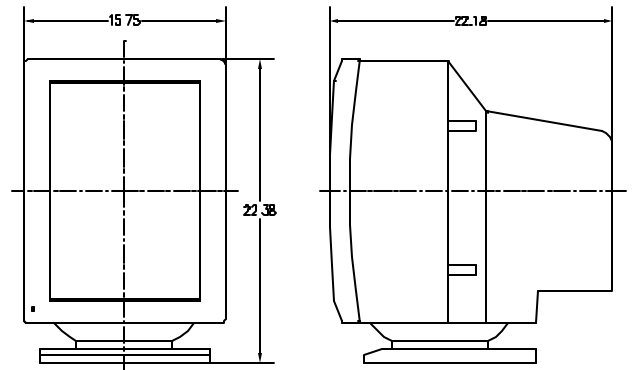
Service Port:
 RS232 Comm Port

User Software Controls
 On-Screen User Controls
 Software Protected by password
 Power Switch

Agency:
 Safety UL, cUL, CE, TUV
 EMI FCC Class A

Environmental Conditions:
Operating
 Temperature 10 to +40 C
 Humidity 10 to 90% non-condensing
Storage
 Temperature -20 to +60 C
 Humidity 0 to 95% non-condensing

Performance Attribute	With 90% Anti-reflective Panel
Factory Settings for Luminance with P45: with P104:	65 fL / 223 cd/m ² 80 fL / 275 cd/m ²
Nominal Pixel Diameter @FWHM (50%)	0.007" / 0.177mm
Nominal Pixel Diameter @ 5% point	0.015" / 0.38mm
Performance with Luminance at 30% of Peak:	20 fL / 66 cd/m ²
Nominal Pixel Diameter @ FWHM (50%)	0.0055 / 0.139mm
Nominal Pixel Diameter @ 5% point	0.012" / 0.3mm
Addressable Pixel Size @ 1600 Horizontal Format	0.007" / 0.178mm
Raster-Addressability-Ratio (RAR) at 100% Luminance:	0.99
at 30% Luminance:	0.78



Weight Approximately: 70 lbs.

Specifications subject to change without notice. Consult Clinton Electronics Corporation for latest Revisions