

# VIDAR® SIERRA™ *plus* Film Digitizer



## Solving Quality, Cost, and Size Barriers to Film Digitizer Use

- Choice of Leading Teleradiology Solution Providers
- Highest Reliability
- Maintenance Free

## Compact and Affordable for a Variety of Healthcare Settings

The award-winning SIERRA™ *plus* Film Digitizer, developed by VIDAR Systems Corporation, represents a significant advance in film digitizer technology and overcomes some of the most common barriers to digitizer use — quality, cost, and size. The ACR-compliant SIERRA *plus* is the lowest cost digitizer for remote primary diagnosis. The SIERRA *plus* also is the first film digitizer small enough to be easily wall-mounted, solving siting problems commonly found at hospitals and radiology offices. It features VIDAR's next-generation proprietary *High Definition CCD* (HD-CCD®) technology. Its unique ADC™ (Automatic Digitizer Calibration) feature results in virtually no variation in image quality and ensures excellent grayscale reproduction in every image. The SIERRA *plus* meets the needs of healthcare professionals for a high quality, affordable, compact film digitizer capable of being integrated into a variety of healthcare settings, including at the point of care.

## Maintenance Free Design and Lower Cost of Ownership

Unlike other digitizers that require biannual calibration or cleaning, VIDAR digitizers need no maintenance or calibration, saving nearly \$2,000 annually. The straight-line film path reduces the need for costly service calls (\$500 or more each) due to film jams. Parts replacement, on-site service, shipping, and service costs for factory repairs can reach \$4,500 annually for laser digitizers. These substantial cost differences are illustrated by a comparative analysis created by PACS expert Michael Cannavo. An analysis of a three-year total cost of ownership demonstrates that the cost of owning a laser digitizer is significantly more than that of a SIERRA *plus*.

## Flexibility of Siting

At just 21.5 pounds, the SIERRA *plus* is significantly lighter than other digitizers that weigh 50-200 pounds. This light weight, combined with its small size — about that of a one-panel light box — makes the wall-mountable SIERRA *plus* ideal for crowded radiology offices and hospitals, where space often is at a premium. It also means that the SIERRA *plus* can be deployed in a number of other settings where quick access to high-quality electronic images would enhance patient care, such as the emergency department, intensive care unit, and coronary care unit, as well as at teaching hospitals and alternate care settings.



## Clinically Proven Image Quality

The SIERRA *plus* continues VIDAR's tradition of exceptional image quality. A recent Mallinckrodt Institute of Radiology study comparing the SIERRA *plus* and the Kodak LS75 laser digitizer demonstrated that there is no difference in image quality and radiologists' preference between radiographs digitized on the two systems. In addition, a ROC (Receiver Operator Characteristic) study conducted at Johns Hopkins University concluded there was no difference in a radiologist's ability to make a correct diagnosis when reading the original films or the SIERRA *plus* digitized images on a high-resolution workstation.

The SIERRA *plus* is supported by VIDAR's superior customer service. It also delivers unmatched stability, consistency, and ease of use. With no additional burden on their staff, radiologists can be confident that the digitized image is faithful to the hard-copy film, and that their diagnoses are based on accurate, complete information.

SIERRA *plus* — combining unmatched image quality, superior reliability, compact size, and low total cost of ownership — results in the most economical ACR-compliant film digitizer on the market.



# SIERRA™ plus Film Digitizer



Nominal Resolution	Pixels (14" x 17" film)	Spot Size (um)	DPI	Line pair per mm	Digitizing Speed
1K x 1.25 K	1050 x 1275	339	75	1.5	<30 Seconds
2K x 2.5K*	2100 x 2550	169	150	3.0	<60 Seconds
4K x 5K	4200 x 5100	85	300	5.8	<120 Seconds

\*ACR Standard for Teleradiology Guidelines [Revision 35 (1998)] recommends 2.5 line pairs/mm minimum

<b>Clinical Optical Density Range</b>	0 to 3.6
<b>Scan Modes</b>	16-bit mapped to 12-bit (4096) and 8-bit (256) grayscale outputs
<b>MTBF</b>	35,000 hours
<b>Film Sizes</b>	Width: 7" to 14" (17.8 cm to 35.6 cm) Length: 7" to 17" (17.8 cm to 43.2 cm) Thickness: 0.006" to 0.010" (0.15 mm to 0.51 mm)
<b>Film Feeder</b>	Single sheet standard. Optional 10-film capacity available (mixed sized – no presorting necessary) "Light Box" loading: head-up, normal reading, left justified Film sizes up to 14" x 17" (35.6 cm x 43.2 cm)
<b>Translation Table</b>	Linear OD
<b>Geometric Accuracy</b>	Better than 1% or 2 pixels, whichever is greater, in both axes
<b>Hardware Interface</b>	Conforms to the SCSI-2 specification SCSI termination and ID selection switches are accessible at base of unit
<b>Software</b>	Windows® scanning modules and software development tools available
<b>Power Requirements</b>	Voltage: 100-240 vac Frequency: 50-60 Hz Power: < 48 watts
<b>Operation Environment</b>	60° to 85° F (15° to 30° C), 20% to 85% relative humidity, non-condensing
<b>Storage Environment</b>	0° to 140° F (-15° to 60° C), 20% to 85% relative humidity, non-condensing
<b>Illuminator</b>	Cold cathode; >35,000 hours expected life
<b>Detector</b>	Solid state, next-generation High Definition CCD (HD-CCD®)
<b>Dimensions</b>	Footprint: 19" W x 18.5" D (48.26 cm x 46.99 cm) Overall: 19"W x 18.5" D x 40" H (48.26 cm x 46.99 cm x 101.6 cm) Shipping: 27" W x 18" D X 27" H (68.6 cm x 45.72 cm x 68.6 cm)
<b>Weight</b>	21.5 lbs. (9.75 kg); shipping weight: 48 lbs. (20.52 kg)
<b>Certifications</b>	FDA 510(k) 993597; CE MDD (93/42 EEC); Canada Class II License; FCC Class A, EMC 89/336/EEC, UL 2601-1; CAN/CSA C22.2 No. 601.1; ISO 9001:2000

Specifications are subject to change without notice.

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