

SIERRA™ *plus* Film Digitizer



Solving the
- Quality
- Cost
- Size
Barriers to
Film Digitizer Use

Remote Primary Diagnosis

The 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 first digitizer to break the \$10,000 price mark 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, new 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.

Clinically Proven Image Quality

Laser digitizers were often used for PACS and remote primary diagnosis due to their image quality. The DiagnosticPRO changed that dynamic. A recent Johns Hopkins study compared the diagnostic accuracy, sensitivity, specificity, and receiver operator characteristics of the DiagnosticPRO and the Lumisys Lumiscan 75™ laser digitizer. The study demonstrated that there is no difference in image quality and radiologists' ability to make correct diagnoses between radiographs digitized on the two systems. In addition, the Radiologist Preference Study, conducted during the 1999 RSNA, concluded that in nearly 60% of the image pairs viewed, radiologists either preferred images digitized on the DiagnosticPRO or had no preference between DiagnosticPRO and laser-digitized images. More than 2,800 image pairs were viewed by 170 radiologists of varying backgrounds and technical expertise levels.

The SIERRA *plus* continues this tradition of exceptional image quality. 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.



Flexibility of Siting

At just 15 pounds, the SIERRA *plus* is significantly lighter than other digitizers, which 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 intensive care unit, coronary care unit, and emergency department, as well as at teaching hospitals and alternate care settings. An optional six-sheet film feeder automates digitizing and increases staff productivity.

SIERRA *plus* — combining unmatched image quality, low total cost of ownership and compact size -- is the first ACR-compliant film digitizer priced under \$10,000.

Small

Inexpensive to purchase & own

Excellent image quality

Reliable performance

Remarkably easy to use

Advanced digitizer

Combining Unmatched
- Image Quality
- Exceptional Reliability
- Low Total Cost of
Ownership

VIDAR® 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

Clinical Optical Density Range	0 to 3.6
Signal to Noise	> 10 RMS @ 3.6 OD
Scan Modes	16-bit mapped to 12-bit (4096) and 8-bit (256) grayscale outputs
MTBF	35,000 Hours
Film Sizes	Width: 5" to 14" (12.7 cm to 35.6 cm) Length: 5" to unlimited (12.7 cm to unlimited) Thickness: 0.006" to 0.010" (0.15 mm to 0.51 mm)
Optional Film Feeder	6-film capacity Supports mixed size batch scanning Film sizes: up to 14" x 17"
Translation Table	Linear OD
Geometric Accuracy	Better than 1% or 2 pixels, whichever is greater, in both axes
Hardware Interface	Conforms to the SCSI-2 specification SCSI termination and ID selection switch is accessible at the back of the unit
Software	Windows® and Macintosh® scanning modules and software development tools available
Power Requirements	Voltage: 95~130 Vac or 190~260 Vac Frequency: 47~63 Hz Power: < 75 Watts
Operation Environment	60° to 85° F (15° to 30° C), 20% to 85% relative humidity, non-condensing
Storage Environment	0° to 140° F (-15° to 60° C), 20% to 85% relative humidity, non-condensing
Illuminator	Cold Cathode; >35,000 hours expected life
Detector	Solid State, Next-Generation High Definition CCD (HD-CCD™)
Dimensions	Footprint: 19.5" W x 7.5" D (49.53 cm x 19.05 cm)
Weight	15 lbs. (6.82 kg)
Certifications	FCC class A; CE mark; UL 1950; IEC-950; CSA; ISO 9002; FDA 510(k) 993597

Specifications are subject to change without notice.

460 Spring Park Place
Herndon, VA USA 20170
www.filmdigitizer.com

Phone: +1.703.471.7070
Toll-free: 1.800.471.7226
Fax: +1.703.471.1165

