

VIDAR® DiagnosticPRO™ *plus* Film Digitizer



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

VIDAR digitizers need no maintenance or calibration, saving nearly \$2,000 annually

Choice of Leading PACS Solution Providers

The DiagnosticPRO™ *plus* Film Digitizer from VIDAR Systems Corporation was developed in response to clinical demands for a high quality, productive, and reliable x-ray film digitizer for PACS and remote primary diagnosis. The DiagnosticPRO *plus* features the company's next-generation, proprietary *High Definition CCD (HD-CCD®)* technology. It incorporates a substantially more sophisticated HD-CCD array and digital electronics design that expand the optical density range and deliver unmatched image quality. Its unique ADC™ (Automatic Digitizer Calibration) feature results in virtually no variation in image quality and ensures excellent grayscale reproduction in every image.

The DiagnosticPRO *plus*, with its high-resolution capabilities (44.5 microns), provides the ability to digitize mammography films, and offers larger spot size options for digitizing general radiographic, CT, MR, ultrasound, and nuclear medicine films. The DiagnosticPRO *plus* exceeds the American College of Radiology teleradiology practice guidelines. In addition, VIDAR offers the only 16-bit A-to-D converter in the industry to maximize grayscale accuracy.

Maintenance Free Design & 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, and 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 DiagnosticPRO *plus*.

Clinically Proven Image Quality

A growing number of clinical studies at leading institutions such as Johns Hopkins University and the Mallinckrodt Institute of



Radiology have demonstrated that there is no difference in image quality and radiologists' ability to make correct diagnoses between radiographs digitized on the DiagnosticPRO *plus* and comparable laser systems. In addition, radiologist preference studies have concluded that the majority of radiologists either preferred images scanned on the DiagnosticPRO or had no preference between DiagnosticPRO and laser-scanned images.

Exceptional Reliability and Productivity

VIDAR's digitizers are supported by a premier customer service department and have been field-proven for reliable performance in more than 300 mobile radiology vans. They have a MTBF of more than four years, and have successfully completed extensive shock and vibration evaluation, undergoing 40 hours of testing — the equivalent of 40,000 miles — in accordance with the MIL Standard. A built-in, 25-sheet mixed-size film feeder increases productivity by reducing time involved with digitizing films. The premier digitizer on the market today, the DiagnosticPRO has quickly become the digitizer of choice for more than 100 leading PACS solutions providers.



DiagnosticPRO™ plus Film Digitizer



Nominal Resolution	Pixels (14" x 17" film)	Spot Size (um)	DPI	Line pairs per mm	Digitizing Speed
1K x 1.25K	1008 x 1124	340	75	1	9 Seconds
2K x 2.5K*	2002 x 2431	170	150	3	19.5 Seconds
4K x 5K	3990 x 4845	85	300	6	39 Seconds

Mammography film: 18 cm x 24 cm

4K x 5K	4104 x 5472	44	570	11	44 Seconds
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*ACR Standard for Teleradiology Guidelines [Revision 35 (1998)] recommend 2.5 line pairs/mm minimum

Clinical Optical Density Range	0 to 3.85
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 51" (12.7 cm to 129.5 cm) (in single film mode only) Thickness: 0.006" to 0.010" (0.15 mm to 0.51 mm)
Auto Film Feeder	Standard 25-film capacity (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)
Translation Table	Linear OD
Geometric Accuracy	Better than 1% or 2 pixels, whichever is greater, in both axes
Scan Rate	125 lines/second
Hardware Interface	Conforms to the SCSI-2 specification SCSI termination and ID selection switches are accessible at back of unit
Software	Windows® scanning modules and software development tools available
Power Requirements	Voltage: 95~130 vac or 190~260 vac Frequency: 47~63 Hz Power: < 75 watts
Operating 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	Broad band white light; >40,000 hours expected life
Detector	Solid-state, next-generation High Definition CCD (HD-CCD®)
Dimensions	Footprint: 16" W x 24" D (40.6 cm x 61 cm) Overall: 25.5" W x 24" D x 29" H (64.8 cm x 61 cm x 73.7 cm) Shipping: 29" W x 24" D x 22" H (73.7 cm x 61cm x 55.9 cm)
Weight	41 lbs. (18.6 kg); shipping weight: 60 lbs. (27.3 kg)
Certifications	FDA 510(k) 993599, CE MDD (93/42 EEC); Canada Class II License; FCC Class A; EMC 89/336/EEC; UL 1950; CAN/CSA 22.2 No. 950-93; EN60950; ISO 9001:2000

Specifications are subject to change without notice.

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