

DOSIMETRYPRO™

Advantage

X-Ray Film Digitizer for Film Dosimetry and IMRT



The VIDAR Advantage

VIDAR® Systems Corporation — the recognized leader in film digitizing technology — offers the VIDAR DosimetryPRO™ *Advantage*, the only digitizer with a 32 bit data path and outputting 16 bits of grayscale data.

The fast-growing areas of Quality Assurance and IMRT have increased the need for precision. Radiation physicists and oncologists need consistent, high-resolution and reproducible analysis of radiation treatment beams used for cancer treatment. VIDAR's state-of-the-art DosimetryPRO *Advantage* was designed to meet these exacting needs.

Most Important, the DosimetryPRO *Advantage* was developed by VIDAR Systems Corporation—a company with more than 10 years of experience serving the oncology market and the most trusted name in film digitizers.

DosimetryPRO Advantage Provides Extraordinary Dose Accuracy

Advanced radiation therapy treatments use the penumbral (beam edge) region, instead of just the flat part of the beam, to better treat tumor regions and to spare adjacent tissues. Use of the VIDAR DosimetryPRO *Advantage* with 65,536 shades of gray, provides significantly more information in the penumbral regions. This means that dose levels to adjacent tissues can be more accurately measured. It also means that leaf leakage in MLC (Multi-Leaf Collimator) systems are easier to measure. Greater dose accuracy for complex fields used in IMRT (Intensity Modulation Radiation Therapy) and Dynamic Therapies results in greater confidence in the delivered dose. All of which translates to better outcomes for your patients.

Technology Advantage and Innovation

The DosimetryPRO *Advantage* film digitizer delivers exceptional geometric accuracy, consistency and reliability, making it the ideal choice for radiation physicists. Incorporating the same advanced technology that is a hallmark of VIDAR's family of film digitizers, the DosimetryPRO Advantage features VIDAR's proprietary High Definition CCD (HD-CCD®) technology, ensuring clinically proven quality and unmatched value. VIDAR has enhanced its ADC™ (Automatic Digitizer Calibration) which prompts the film digitizer to calibrate automatically before every film digitized and it guarantees maximum consistency in gray scale values for dose measurement and IMRT analysis from one digitized film to another - first time, every time. The system offers ease-of-use and rugged, reliable performance, allowing clinicians to



focus on the patient — rather than on the digitizing equipment. VIDAR has filed three patents related to the DosimetryPRO *Advantage* technology. Each of these patents applies to critical product attributes such as image quality, reliability, and system throughput. The DosimetryPRO *Advantage* offers unmatched spatial and contrast resolution, allowing oncologists, physicists, and dosimetrists to be confident that the image data the system receives from the film digitizer, is an exact representation of the original film.

Proven Consistency, Reliability, & Exceptional Quality

Unlike other manufacturers that take an evolutionary approach, VIDAR has created a revolutionary design for the DosimetryPRO *Advantage* in the important areas of image quality, reproducibility, and productivity. The DosimetryPRO *Advantage* delivers superior optical density range which results in exceptional diagnostic quality and value.

The DosimetryPRO *Advantage* system features 65,536 shades of gray with an optical density range of 0.00-4.00, and the geometric accuracy is better than 1% or 2 pixels, whichever is greater, in both axes. Meeting the highest image quality standards in the industry makes the DosimetryPRO *Advantage* ideal for the most demanding applications, including radiation film dosimetry, quality assurance, and IMRT.

VIDAR's clinically proven technology and unique product designs continue to set the standard for excellence in a number of market segments, including PACS, teleradiology, telemedicine, mammography, and oncology. VIDAR's digitizers are the choice of more than 100 systems solution providers.

- Self-Calibrating Before Every Digitized Film
- Superior Reproducibility
- Highest Reliability for Maximum Uptime

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Nominal Resolution	Pixels (14" x 17" film)	Spot Size (um)	DPI	Line pairs per mm	Digitizing Speed
2K x 2.5K*	1995 x 2422	178	142.5	2.8	12 Seconds
4K x 5K	3990 x 4845	89	285	5.6	24 Seconds

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

Clinical Optical Density Range	0 to 4.0
Bit Depth	32-bit mapped to 16-bit (65,536), 12-bit (4,096), or 8-bit (255) Grayscale Output
MTBF	≥50,000 hours
Film Sizes	Width: 8" to 14" (20 cm to 35.6 cm) Length: 8" to 17" (20 cm to 43.2 cm) Thickness: 0.006" to 0.008" (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 Tables	Standard look-up tables: linear, log, square root and power tables
Geometric Accuracy	Better than 1% or 2 pixels, whichever is greater, in both axes
Scan Rate	200 lines/second
Hardware Interface	Conforms to the SCSI-2, SCSI Ultra Wide 160, and USB 2.0 specifications SCSI termination and ID selection switch is accessible at the back of the unit
Software	Windows® scanning modules and software development tools available
Power Requirements	Voltage: 85~264 Vac Frequency: 47~63 Hz Power: < 100 Watts
Operating Environment	50° to 95° F (10° to 35° C), 20% to 85% relative humidity non-condensing
Storage Environment	0° to 140° F (-18° to 60° C), 20% to 85% relative humidity non-condensing
Illuminator	Instant-On VIDAR Hot Light™ Technology; ≥100,000 scans
Detector	Solid-state, next-generation High Definition CCD (HD-CCD®)
Dimensions	With Feeder and Exit Tray: 19" W x 23" D x 29.25" H (483mm x 584mm x 743mm) Without Feeder and Exit Tray: 19" W x 14.25" D x 16.5" H (483mm x 362mm x 419mm) Shipping: 24" W x 29" L x 24" H (610mm x 737mm x 610mm)
Weight	40 lbs. (18 kg); shipping weight: 60 lbs. (27 kg)
Certifications	FDA 510(k) 993599; FCC Class A; CE 93/42/EEC; ISO 60601-1-2:2000 EN 60601-1; UL2601; CAN/CSA C22.2 No 601.1-M90; Health Canada Device Class 2 License; ISO 9001 (2000), ISO 13485 (1996)

Specifications are subject to change without notice.

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