

# VIDAR Dental Film Digitizer

## Medical Grade Film Digitizer for Dental Applications

### Specialized Medical Device for Digitizing X-ray Films

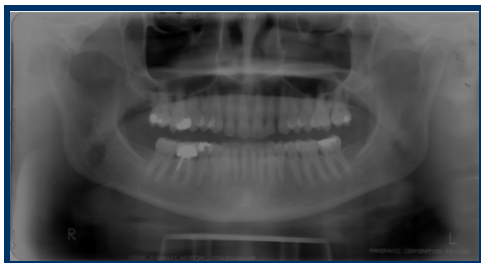
Paper scanning is an office task and can be done with general office equipment. Medical film digitizing is an imaging procedure governed by medical and industry regulations. VIDAR's Dental Film Digitizer is specifically tailored for dental applications and is a regulated medical device for use in diagnostic applications. Special attention must be paid to the unique challenges of accurately and reliably visualizing the details in medical films – an opinion and/or decision will be made about patient care based on these images.

VIDAR employs specialized optics to deliver quality results specifically for transmissive materials such as x-rays, not reflective media. The Dental Film Digitizer is designed to accurately render the full grayscale data with minimal noise throughout the specified grayscale density range, and has a unique ADC (Automatic Digitizer Calibration) feature that ensures excellent grayscale reproduction.

### Clinically Proven Image Quality

Clinical studies at leading institutions such as Johns Hopkins University and the Mallinckrodt Institute of Radiology have demonstrated an effective clinical comparison between film and VIDAR's digitized images, even in demanding applications like mammography where native resolution may approach 16+ LP/mm.

#### Before Digitizing



#### After Digitizing



**VIDAR's Dental Film Digitizer**

### Multiple Benefits

- Digitizes panoramic film for cost-effective integration into the patient's digital record
- Provides high quality images, for primary diagnostic reading and fast scanning (18 seconds for a panoramic film)
- Digitizes patient films from other referral facilities or for consultation
- Digitizes prior patient files so that file space can be reclaimed and used for other purposes
- Increases insurance claims approval and payment

### Reliability, Flexibility and Productivity

VIDAR's reputation for reliability is world-renowned, and a key to our products becoming the #1 selling medical film digitizers. A variety of software connectivity options exist for easy integration into practice management systems.

VIDAR offers high-speed scanning of dental images without sacrificing quality, and supports scanning of all dental film sizes: Panoramic, Cephalometric, and Intraoral films.

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Film Size	DPI	Line pairs Per mm	Digitizing Speed/Film Size
Full Periapical series Holder size 4.875" x 11.5" 12.4 x 29.2 cm	300	5.9	17.6 Seconds/ 4.70 MB Bitewing is 184KB (8 bit) and 340KB (12/16 bit)
Panoramic 5" x 12"/6" x 12" 12.7 x 30.5cm/15.2x30.5cm	300	5.9	18 Seconds/ 21.6 Seconds 5"x12" is 5.4 MB (8 bit) or 10.8 MB (12/16 bit)
Cephalometric 8" x 10" 20.3x25.4cm	300	5.9	28.8 Seconds 7.2 MB (8 bit) or 14.4 MB (12/16 bit)

**Please note: File sizes are uncompressed TIFF images.**

### Specifications

<b>Clinical Optical Density Range</b>	0.2 to 3.6 (calculated with medical noise and linearity requirements)
<b>Optical Density Sensitivity (D<sub>MAX</sub>)</b>	4.1 OD
<b>Supported Films</b>	Size 0, 1, 2, 3, 4, films (placed in a holder which meets minimum film size specifications) Panoramic and Cephalometric films
<b>Bit Depth</b>	16-bit mapped to 16-bit (65,536), 12-bit (4096) and 8-bit (256) grayscale output
<b>True Optical Resolution</b>	300 dpi
<b>Film Sizes</b>	Width: 6" to 13" (15.2 to 33cm) Length: 4" to 13" (10.2 to 33cm) Thickness: Up to 0.025" (0.06cm)
<b>Geometric Accuracy</b>	Better than 1% or 2 pixels, whichever is greater, in both axes
<b>Hardware Interface</b>	USB 2.0
<b>Software</b>	TWAIN compliant interface, and software development tools available Clinical DICOM software available separately
<b>Power Requirements</b>	Voltage: 100~240 Vac, Frequency: 50~60 Hz, Power: ≤48 Watts
<b>Operating/Storage Environment</b>	Operating: 60° to 85° F (15° to 30° C), 20% to 85% relative humidity, non-condensing Storage: 5° to 140° F (-15° to 60° C), 20% to 85% relative humidity, non-condensing
<b>Illuminator</b>	LED Illuminator
<b>Detector</b>	Solid-state, next-generation High Definition CCD (HD-CCD®)
<b>Dimensions</b>	Footprint: 19" W x 13.30" D (48.26 cm x 33.78 cm) Overall: 19" W x 13.30 D" x 8" H (48.26 cm x 33.78 cm x 20.3cm) Shipping: 27" W x 18.5" L x 27.38" H (68.6 cm x 6.99 cm x 69.47 cm)
<b>Weight</b>	22 lbs. (10 kg); shipping weight: 40 lbs. (18 kg)
<b>System requirements</b>	<ul style="list-style-type: none"> <li>• 3.0 GHz Pentium 4 PC</li> <li>• 512 MB of memory</li> <li>• 30 GB Hard Disk</li> <li>• USB 2.0 connectivity</li> <li>• Windows XP professional Edition (SP 3) or Windows VISTA Business (SP) 1</li> <li>• 15" Monitor with 1280 x 1024 resolution</li> <li>• Display card with 16 MB of video RAM</li> <li>• CD-ROM drive</li> <li>• TWAIN-compliant host application</li> </ul>
<b>(You must supply a computer system that meets or exceed the following requirements)</b>	

**NOTE: Scanning films at high resolution and bit depth produces very large files which must fit into system memory. If installed memory is not sufficient, software and/or system crashes may occur.**

Specifications are subject to change without notice.

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