

trident

Reader

Phosphor Plates Scanner

Technical Info



CE 0051



Date: 28/05/2018
Language: English
Rev: 2/2018
Code: IT07-EN.r1-Reader-Infotec

DESCRIPTION AND INTENDED USE

Reader is a scanner for reading intraoral phosphor plates (PSP). The plates are used as receptors for radiographies obtained with an X-Ray unit. Once the take is done, the PSP is introduced into the scanner's slot, which read it and send the image to the PC.

The scanner reads and clears the plates in few seconds, allowing the plate to be reused repeatedly. Under good using conditions, each plate allows to take around 1000 exposures.

Note: Reader only works with Trident plates.

The system works with an special software to manage and store the images. This software has many utilities including:

- Display in scenic and / or multi image
- Enlarging images with dynamic zoom and scroll
- Flip and rotate images
- Change brightness and contrast
- Application median filters, logarithmic, noise reduction, dynamic and spatial
- Modify LUT (look up table) and Gamma (compression gray scale)
- Reversal of the gray scale (positive / negative)
- Applying special filters such as the exclusive harmonizer that optimizes the display of all the density on the image
- Viewing histograms and representation densitometry profiles
- Inserting anatomical references according to international numbering
- Measuring linear and angular dimensions with the possibility of dedicated calibration
- Printing images with or without comments and measurements
- Database

Key Features

14, 3 lpm real resolution images

20 seconds are needed for sending the image to the computer and cleaning the plate for a new use.

170 x 190 x h 300 mm

7 Kg weight

Code PP001-Reader: Phosphor Plate Scanner

GENERAL CHARACTERISTICS

Unit name	Reader
Manufacturer	Trident Srl Via Artigiani 4, Castenedolo, 25014 (BS) Italy
Classification according to Directive EC 93/42	Class IIa rule 16
Applicable Standards	EN 60601-1:2005 EN 60601-1-2:2007 CEI EN 60825-1

TECHNICAL CHARACTERISTICS Scanner

Input Voltage	100-240V AC, 50-60 Hz
Input Current	0.1 A (240V)/0.24 A (100 V)
Power Consumption	24 VA
Device voltage	24 V DC
Device current max	1 A
Dynamic Range	16 bit
Resolution	14 lp/mm
Supply voltage	5 V DC from USB
Connection to PC	USB 2 (A type) cable 2 mt
Maximum absorbed current	275 mA
Frame rate	0.7 fps

TECHNICAL CHARACTERISTICS Phosphor Plates

Intraoral Image Plates	CAWO Photochemisches Werk GmbH Steingriffer Strasse 2-6 D-86529 Schrobenhausen Germany	
Phosphor Composition	BaSrFBr:Eu	
Luminescence	400 nm	
Phosphor Plate dimensions	Size 0	22 x 31 mm
	Size 1	24 x 40 mm
	Size 2	31 x 41 mm
	Size 3	27 x 54 mm
Pixel size	35 µm	
Pixel shape	Square	
Image dimensions	Size 0	726 x 1155
	Size 1	792 x 1321
	Size 2	1024 x 1352
	Size 3	891 x 1783

Environmental Characteristics Scanner

Operating temperature	10 to 40°C
Transport and Storage temperature	-20/+60°C
Storage humidity	less than 75% non-condensing
Operating Relative Humidity Range	30% to 75%
Operating Functioning Atmospheric Pressure	From 80 to 106 Pa (maximum height ≤ 2000m)
Temperature Range For Transport And Storage	From - 20°C to + 60°C
Maximum Relative Humidity For Storage And Transportation	< 80 % non-condensing
Atmospheric Pressure For Transport And Storage	From 70 to 106 Pa
Readout Time	20 sec (avg time, depending on the plate size)





Environmental Characteristics Plates

Image Latency time	60' from exposure
Operating temperature	15 to 34°C
Transport and Storage temperature	< 34°C
Operating Relative Humidity Range	30% to 80%

PC Requirements

Operating System	Windows® 7 (32/64 bit) SP1, Windows® 8 64 bit, Windows® 10
CPU	Intel i5-2520M 2.5 GHz or superior
RAM Memory	4 GB or superior
Hard disk	500 GB
USB Port	2.0
Monitor	17" or superior
Video PCB	1024x768 resolution in 65,000 colours (ideally 1280x1024 - 16 million colours, 32 bit)

LABEL

	
Unit type: ReadeR	
	
Line: 100-240V ~ 50/60 Hz 60W	
	

PACKAGING

Box	W (Kg)	Size (cm)
Scanner and accessories	7Kg	40 x 26 x h28

Reader

