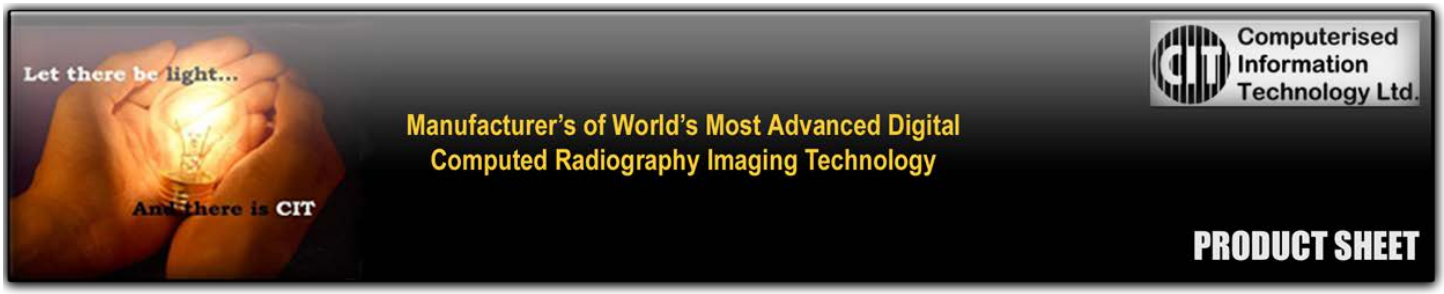


DR1100 – High Definition Digital Computed Radiography System

CIT Part Code: CIT-DR1100-HDCR

CIT's industrial NDT radiography DR1100 System is based upon the **Computed Radiography Flexible Imaging Plates and the High Performance NDT Workstation technology.** The system **Replaces Conventional Film Radiography** with Flexible Reusable Digital Imaging Plates. It uses your existing radiographic set up but with reduced radiation strength value and reduced exposure time to generate a Digital Radiographic Image making it very environmental friendly. Digital Radiography Software Package is a Powerful Product Inspection Tool that manages Image Capturing, Storage, Retrieval, Report Generation and Advanced Radiograph Analysis. The application also includes high security at all levels - operator, supervisor, interpreter and auditors. The acquired radiographic images can then be digitally archived and retrieved.

BENEFITS = Reduced Cost of Ownership

The system generates results within minutes and **eliminates** any chemicals, chemical disposal, films, film wrapper and storage requirements. The economic benefits result in with faster access to information for maintenance, predictive planning to meet the regulatory requirements and the safety of the plants.

Figure 1 – DR1100 HD CR Scanner Unit [wt18kg]

Figure 2 - NDT Professional Workstation

Salient Features

Radiation Sources

- YTB /Se75/Iri Gamma radiation Source
- From 10kV to 10.8 MeV X-Ray energy operation
- Pulse / CP / Half wave sets
- Portable X-ray sources

Digital Radiography Detector

- 25, 50, 75 & 100 microns
- 13th Line Pair on Duplex IQI (D13+) with 25 micron scan
- Reusable Digital Imaging Plate
- Reduced Exposure Time
- Artifact free scanning

Radiography NDT Workstation

- Black and white grey scale >650cd/m2 brightness viewing monitor
- Resolution 2MP or 3MP or 5MP
- Professional scientific workstation
- Industrial grade computer system

Applications

- Carbon Composite Inspection
- Inspection of Foils
- Casting Inspection
- Weld Inspection

Market Sectors

- Petrochemical Refinery
- Power stations
- Aerospace Industry
- Automotive Industry
- PCB / Electronics
- Foreign Bodies
- Forensic
- EOD / EID

Computerised Information Technology Ltd.

Technical Specifications for DR1100 Computed Radiography – HDCR System

Inspection Capability

- Volumetric defects in welds and casting of different material
- Magnesium, Aluminum, Steel, Inconel, Plastics, Composites, GRP
- Material Characterisation, Density Analysis
- Material Calibration

Digital Radiography Detector

- Scanning Resolution – 25, 50, 75 & 100 microns
- Image Plate sizes – 90mm x 120mm, 100mm x 250mm, 100mm X 300mm, 150mm X 300mm, 200mm x 300mm
- Embedded Laser Specifications – Visible Light Output – 635-650 nm (class 3b) Ouput Power – up to 15 mW
- Linear Response
- Front loading Imaging Plate System
- Energy Range – 20kV – 10.8 MeV and radiation gamma sources
- Integrated Erasure Unit
- Power Consumption – 100-240 VAC / 50/60 Hz 2 A

Regulatory

- IEC 601-1
- EN60601 – 1 – 2
- IEC 60285-1

Radiograph Computer Processor

- Industrial Standard High Performance Computer System
- Intel Core 2 Duo Processor, 4GB DDR3 RAM, 1T HD, BluRay Drive
- Ethernet, Satellite and Modem Connectivity
- Windows XP Professional

Radiograph Display Options

	Basic System	Optional upgrade	Optional upgrade
Monitor TFT type	2Megapixel	3Megapixel	5Megapixel
Resolution	1600 X1200	2048X1536	2560X2048
Screen brightness	>650 cd/m2	>650 cd/m2	>650 cd/m2
Diagonal Size	18”	20.8”	21”
Pixel pitch	0.26mm	0.20mm	0.165mm
Availability	Monochrome or Color or dual	Monochrome or color	Monochrome

CIT DR1100 – NDT Industrial Digital Radiography Application

- Digital Radiograph Acquisition and Image Capture
- Advanced Radiograph Image Analysis
- Inspector’s Measurement Tools – Flaw Gauge, Distance Measurement, Line Profile, Advanced Line Profile
- Automated Report Generation
- Archival of Radiograph Images with full Quality Audit

Other Optional Software Modules

- Corrosion and Condition Management
- Flaw Depth Measurement
- Schema based Inspection
- MISDR (Linking with Excel / SQL Server – Production Data)

Environmental Operating Conditions

- Temperature: 18 – 30ºC; 64 – 86ºF
- Relative Humidity: 80% (max) non-condensing

Storage Conditions

- Temperature: -15 – 60ºC; 5 – 140ºF
- Relative Humidity: 80% (max) non-condensing

Physical Dimensions

- Digital Radiography Detector – 48(w) x 24(h) x 38(d) cm - 18 kg (weight)
- Radiography NDT Workstation – 583 x 126 x 451 mm - 11 kg (weight)

Image Acquisition

Technique Setup

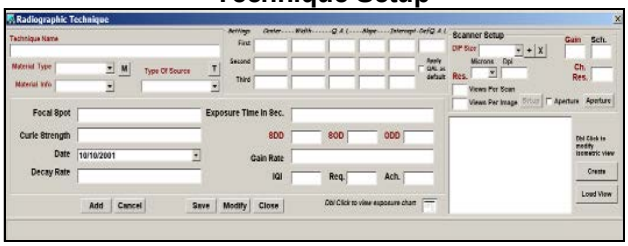
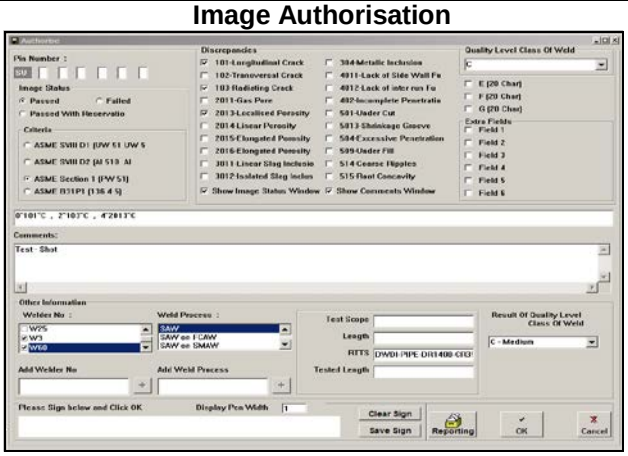
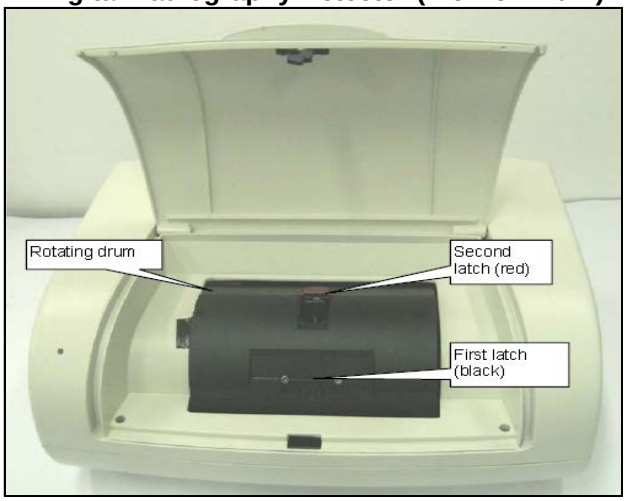


Image Authorisation



Digital Radiography Detector (View of Drum)



Computerised Information Technology Limited
20, Potters Lane, Kiln Farm, Milton Keynes, Buckinghamshire, United Kingdom MK113 HF
Tel: +44(0)1908260082, Fax: +44(0)1908260084, Email:info@cituk.com
Website: www.cituk.com | Regd. Office England: 2149641

DR1100 – Ordering Information

S. No.	Item Part Code	Description	Unit	Price
DR1100 System Components				
1	CIT-DR1100-CR-LAP	DR1100 Computed Radiography System with Laptop		
2	CIT-DR1100-2MP	DR1100 System with 2MP Monochrome Monitor		
3	CIT-DR1100-3MP	DR1100 System with 3MP Monochrome Monitor		
4	CIT-DR1100-5MP	DR1100 System with 5MP Monochrome Monitor		
DR1100 Standard (STD) – Reusable Digital Imaging Plates (DIP)				
5	CIT-DR1100-DIP912-STD	Standard DIP – 9 x 12 (in cm)		
6	CIT-DR1100-DIP1025-STD	Standard DIP – 10 x 25 (in cm)		
7	CIT-DR1100-DIP1030-STD	Standard DIP – 10 x 30 (in cm)		
8	CIT-DR1100-DIP1530-STD	Standard DIP – 15 x 30 (in cm)		
9	CIT-DR1100-DIP2030-STD	Standard DIP – 20 x 30 (in cm)		
DR1100 High Resolution (HR) – Reusable Digital Imaging Plates (DIP)				
10	CIT-DR1100-DIP912-HR	HR DIP – 9 x 12 (in cm)		
11	CIT-DR1100-DIP1025-HR	HR DIP – 10 x 25 (in cm)		
12	CIT-DR1100-DIP1030-HR	HR DIP – 10 x 30 (in cm)		
13	CIT-DR1100-DIP1530-HR	HR DIP – 15 x 30 (in cm)		
14	CIT-DR1100-DIP2030-HR	HR DIP – 20 x 30 (in cm)		
DR1100 Super High Resolution (SHR) – Reusable Digital Imaging Plates (DIP)				
15	CIT-DR1100-DIP912-SHR	SHR DIP – 9 x 12 (in cm)		
16	CIT-DR1100-DIP1025-SHR	SHR DIP – 10 x 25 (in cm)		
17	CIT-DR1100-DIP1030-SHR	SHR DIP – 10 x 30 (in cm)		
18	CIT-DR1100-DIP1530-SHR	SHR DIP – 15 x 30 (in cm)		
19	CIT-DR1100-DIP2030-SHR	SHR DIP – 20 x 30 (in cm)		
DR1100 – Adapters for Digital Imaging Plates				
20	CIT-DR1100-Adapt912	Adapter for 9 x 12 (in cm) DIP		
21	CIT-DR1100-Adapt1025	Adapter for 10 x 25 (in cm) DIP		
22	CIT-DR1100-Adapt1030	Adapter for 10 x 30 (in cm) DIP		
23	CIT-DR1100-Adapt1530	Adapter for 15 x 30 (in cm) DIP		
Consumable				
24	CIT-DIP-Clean Dry wipes	DIP lint free cleaning dry wipes pack of 10		
25	CIT-DIP-Clean wet wipes	lint free cleaning wet wipes pack of 10		
26	CIT-B50GB optical bare media	50GB 50 years data media phase change technology *Pack of 10*		
27	CIT-B50GB optical cartridge based ADA media	50GB 50 years ADA data media phase change technology mounted in tamperproof cartridge to meet the regulatory market requirement *Pack of 10*		

Computerised Information Technology Limited
20, Potters Lane, Kiln Farm, Milton Keynes, Buckinghamshire, United Kingdom MK113 HF
Tel: +44(0)1908260082, Fax: +44(0)1908260084, Email:info@cituk.com
Website: www.cituk.com | Regd. Office England: 2149641