

DR7700L – Direct Digital Radiography System

CIT Part Code: CIT-DR7700L

Applications

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

Market Sectors

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

Features

- X-ray generator –
 - Pulse/CP/half wave
 - Support Yb169 gamma source
- High speed imaging
- High quality 16-bit radiographic images
- High brightness, high contrast monitor

Non-destructive Examination (NDE/NDT) of products based upon radiographic inspection technique can be conducted using Digital Radiography Technology. CIT's DR7700L System is based upon using amorphous Silicon photodiode array sensor, portable x-ray generator (160 or 225 kV) and high performance NDT workstation. The sensor module is slim, lightweight and housed in a rugged Aluminum casing. The high speed detector provides images instantly having a high dynamic range and 144 micron resolution. The system can be installed in your NDT x-ray facility, laboratory or used for site radiography or alternatively CIT can supply radiation bay with the above system.



**Portable x-ray generator
160 kV or 225 kV with
Tungsten shielding**



a-Si sensor



2,3, or 5 MP Monitor

Technical Specifications

Radiograph Detector			
Sensor Type	CsI coupled to TFT a-Si	Operating Temperature	18 – 30 °C
Active Area	342 x 432 mm	Operating Humidity	20 – 75 % RH
Dynamic Range	16 bit	Storage Temperature	-10 to 55 °C
Pixel Resolution	2372 x 3000	Battery Operation Time	2 hours at 90 images/hr
Resolution	144 micron	Dimensions	466 x 488 x 25.5 mm
Energy Range	40 to 150 kV [225 kV optional]	Weight	4.8 kg
Interface	Wifi, Ethernet	Power Input	24 V

Display Monitor Options				
Radiograph Display	2 Megapixel	3 Megapixel	5 Megapixel	Laptop
Display Size	19.6" TFT –Mono/color	20.8" TFT screen -Mono	21" MonoTFT - mono	15.5" color
Display resolution	1600 x 1200 pixels	2048 X 1536 pixels	2560 X 2048 pixels	1920 x 1080 pixels
Pixel Pitch	0.249 x 0.249 (mm)	0.207 x 0.207 (mm)	0.165 x 0.165 (mm)	-
Display brightness	910 cd/m2 with LUC	800 cd/m2 with LUC	800 cd/m2 with LUC	-

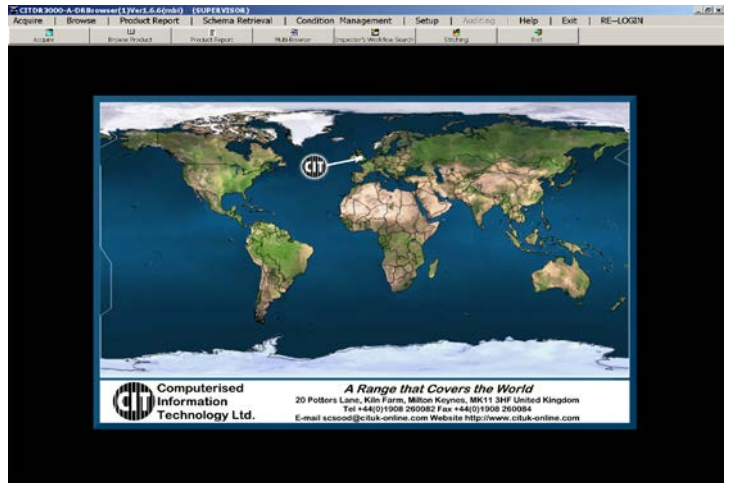
NDT Workstation Specifications

Hardware Specifications

- High Performance Computer System with Intel Core 2 Duo Processor, 4GB DDR3 RAM, 1T HD, BluRay Drive

CIT/DR-Viewer Software

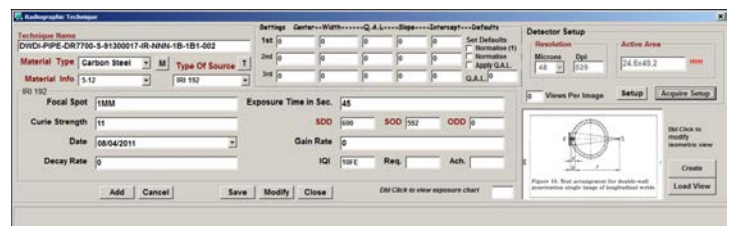
- Security features – group-based password protection, electronic signatures, cryptographic tamper-proof images
- Supported image types – 8, 12, 16 bit tiff /dicom / diconde
- Product profile and radiographic technique
- Different browsing modules to suit different user needs – Product Browser, Product Report, Multibrowser, Inspectors' workflow search
- System administration – system housekeeping, data backup and retrieval, user accounts management
- Advanced Radiograph Image Analysis [optional] – Image info, measurement tools such as distance measurement, line profile, etc. image manipulation tools zoom, magnify, flip, rotate, etc.



DR-Viewer

Teach-Learn Acquisition Mode

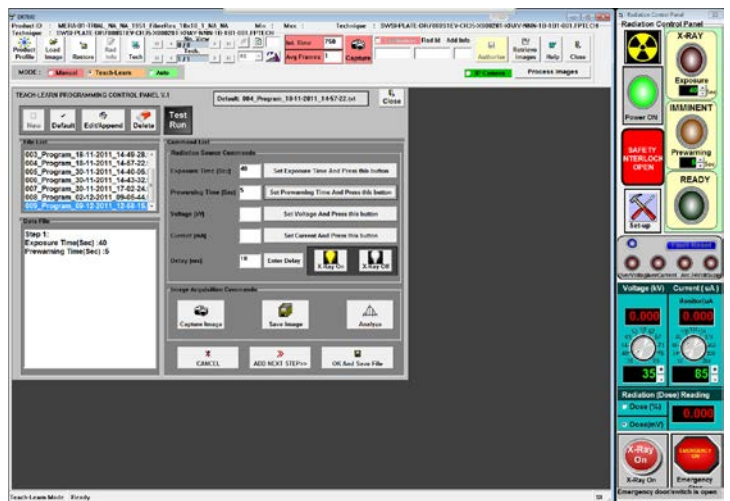
- Teach the software the steps for a particular inspection without programming
- Teach capabilities as simple as entering values
- Save multiple teach-learn files and one as default
- Saved files can be edited
- Test run feature enables you to test the defined steps there itself and rectify in case of an error



Radiographic Technique

Radiation Control Panel

- Integrated radiation control panel enables monitoring and controlling the x-ray source from the workstation itself.
- Safety interlocks and audio-visual warning alarms prevent accidental switching on of x-rays



Teach-Learn Acquisition Mode with Radiation Control Panel