Let there be light...

And there is CIT

DR7700S – Direct Digital Radiography System

CIT Part Code: CIT-DR7700S

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
- Performance – 3.94 lp/mm

Nondestructive Examination (NDE/NDT) of products based upon radiographic inspection technique can be conducted using Digital Radiography Technology. CIT's DR7700S System is based upon using amorphous Silicon Photodiode array sensor, portable x-ray generator (160kV) 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 127 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.

X-ray generator 160 kV or 225 kV with Tungsten shielding

a-Si sensor
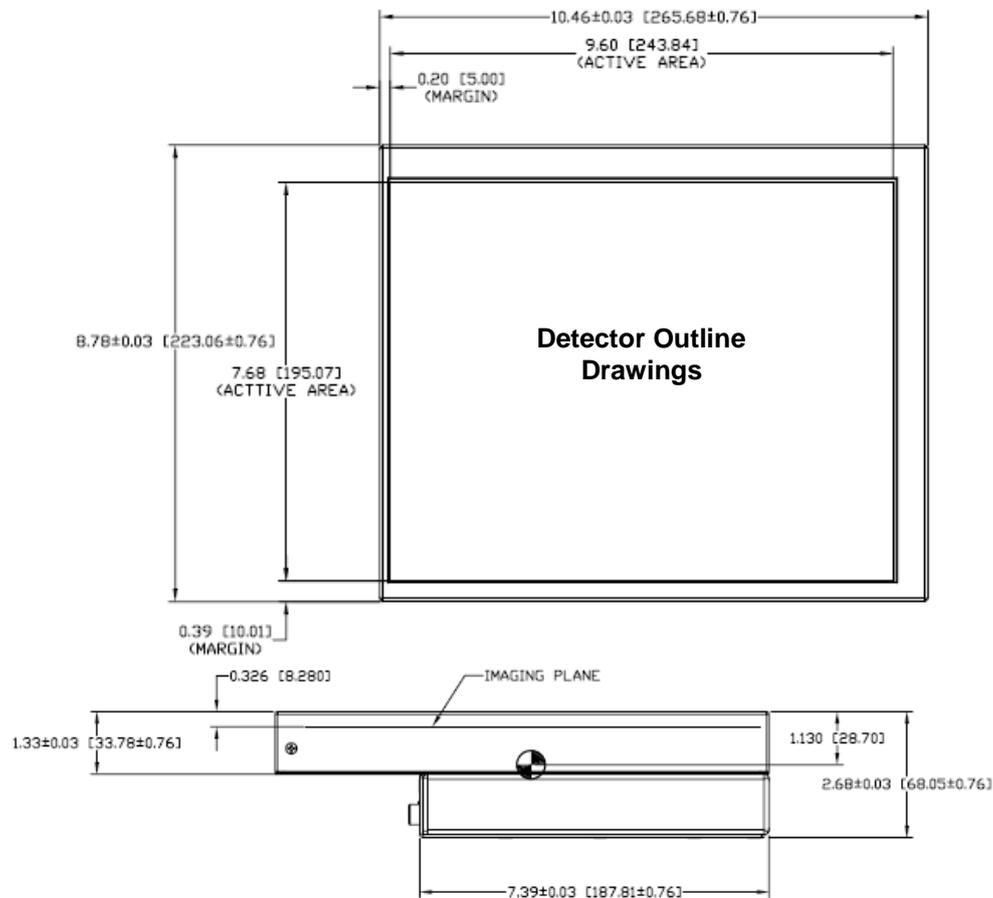
2,3, or 5 MP Monitor

Technical Specifications

Radiograph Detector

Sensor Type / Housing Material	a-Si / Aluminum	**Operating Temperature**	10 to 35 °C
Active Area	193 x 244 mm	**Operating Humidity**	10 to 90% non-condensing
Dynamic Range	14 bit	**Storage Temperature**	-20 to 70 °C
Pixel Resolution	1516 x 1900	**Storage Humidity**	10 to 90% non-condensing
Resolution, Performance	127 micron, 3.94 lp/mm	**Dimensions**	461 x 235 x 26.5 mm
Energy Range	40 to 150 kV	**Weight**	4.38 kg
Interface	Gigabit Ethernet	**Power Input**	90 – 264 VAC, 47 – 63 Hz

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	-

Detector Outline Drawings

10.46±0.03 [265.68±0.76]
9.60 [243.84] (ACTIVE AREA)
0.20 [5.00] (MARGIN)
8.78±0.03 [223.06±0.76]
7.68 [195.07] (ACTTIVE AREA)
0.39 [10.01] (MARGIN)
0.326 [8.280]
IMAGING PLANE
1.33±0.03 [33.78±0.76]
1.130 [28.70]
2.68±0.03 [68.05±0.76]
7.39±0.03 [187.81±0.76]

NDT Workstation Specifications
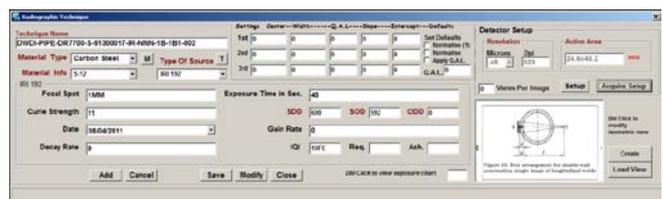
Hardware Specifications

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

CIT/DR-Browser 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-Browser

Radiographic Technique