

Annexure – 02

Technical Specification for Digital Mammography Flat Panel Detector Retrofit

Digital Mammography Retrofit Solution with Flat Panel Detector for integration with existing Analog Mammography systems. The system should provide high-resolution breast imaging with fast image acquisition, advanced image processing, and DICOM connectivity for seamless workflow integration.

1. Detector System Specification

Specification	Details
Detector Type	Slim Cassette Type Digital Mammography Flat Panel Detector
Detector Size	Approximately 24 cm × 30 cm compatible with existing Bucky system
Scintillator Material	Cesium Iodide (CsI)
Sensor Technology	Thin Film Transistor (TFT) with Amorphous Silicon
Pixel Size	Less than 80 microns
Detector Resolution	3072 × 3840 pixels
Modulation Transfer Function (MTF)	65% @ 3 lp/mm
Detector Dimensions	Approximately 253.7 × 327.5 × 14.2 mm
Chest Wall Distance	Less than 2 mm
Detector Weight	Less than 1.2 kg
A to D Conversion	16 Bit
Data Interface	Gigabit Ethernet
Image Preview Time	Less than 2 seconds
Total Cycle Time	Less than 10 seconds
Compatibility	Should integrate with existing analog mammography systems of any make
AEC Compatibility	Compatible with AEC sensor of existing systems
Operating Environment	Should operate under standard room temperature and humidity conditions
Calibration	Should not require frequent daily calibration

2. Image Processing Console / Workstation

Specification	Details
Console Type	Image Processing Console with workstation
Processor	High-speed processor suitable for digital mammography processing
Monitor	Minimum 17-inch-high resolution monitor

Image Preview	Preview available within 10 seconds or less
Image Storage	Capability for local image storage
Image Styles	Minimum 9 image style options
Image Processing	Advanced processing with reverse filtering technology to enhance image sharpness
Image Layout	One-click image layout adjustment
Image Comparison	Instant recall of current and previous studies
Image Quality Review	Thumbnail view for quick inspection
Connectivity	Direct connection to printer
DICOM	DICOM Worklist, Print and Send compatibility

3. Optional Accessories

Specification	Details
Medical Grade Monitor	3 MP / 5 MP high resolution diagnostic monitor
Graphics Card	Suitable high-performance graphics card for image processing

4. System Requirements:

Requirement	Details
Manufacturer	Detector and console software must be from the same manufacturer
Certification	Detector should be CE and USFDA approved
Spares Availability	Spare parts should be readily available in India
Service Support	Trained service engineers should be available for installation and maintenance