

# REQUEST FOR QUOTATION (RFQ) AND GENERAL INSTRUCTION TO CONTRACTORS (GIC)<sup>1</sup>

To :

Project: MHD

Ref. No.: 4200141021

Date: 01 December, 2021

The International Organization for Migration (IOM) is an intergovernmental organization established in 1951 and is committed to the principle that humane and orderly migration benefits both migrants and society.

In the framework of Migration & Health Departament, IOM invites interested eligible Suppliers to submit Quotations for supply & delivery of Portable X-Ray machine At IOM Kutupalong/Ukhiya warehouse as per attached List. Specification & quantities.

Sl No	Item	Specification	Qty	UOM	Unit Price	Total Price	Delivery Time
1	Supply of Portable X-ray Machine with accessories.	Details Specification, please see below	1	Unit			
2	Supply Of lase printer for X-Ray image printing	Details Specification, please see below	1	Unit			

Technical Specification is as below:

#### X-Ray:

PROJECT		
Project Name	Supply of Portable X-ray Machine with accessories.	
Quantity	1	



Project Requirement	
Design (Yes/No)	No
Supply (Yes/No)	Yes
Installation (Yes/No)	Yes
Testing (Yes/No)	Yes
Commissioning (Yes/No)	Yes
Calibration (Frequency/Year)	02 Times per Year (Each Calibration will have a Validity of 06 months)
Quality Control (Frequency/Year)	02 Times per Year (Each Quality Control will have a Validity of 06 months)
Preventive Maintenance (Duration)	02 Times per Year (Each Preventive Maintenance will have a Validity of 06 months)
Troubleshooting Supports (Duration)	01 Year (Standard)
Warranty	All Spare parts (01 Year) and All Software including Diagnostic Software (Unlimited)     Warranty will start after successfully Installation & Handover the whole system.

PRODUCT INFO		
Product Name	Portable X-ray Machine	
Standard Reference	• Comply with the requirements of all relevant Bangladesh Standards (BSTI), Bangladesh Atomic Energy Commission Standard for Radiology Equipment, ALARA, ISO, IEC Standards (IEC 60601-1), FDA Standards, CE Standards regarding equipment manufacture, whether or not these are specifically mentioned in the Specification.	
Application	Indoor and Outdoor(for Emergency purposes), Covid-19 Patients, TB Patients, Fracture cases, General X-rays	
GENERAL SPECIFICATION		



X-ray generator	X-ray Generator & X-ray Tube including Collimator, LASER Guide, Measurement Tape are Compact all together in Single Unit & must be of very light in weight ≤ 7 Kg     The Whole Compact Single Unit X-ray System must be carried out easily by Hand or by Backpack     Power Supply: Supply Mains Power (Single Phase, 220VAC, 50Hz)     High frequency Inverter for X-ray Generator having ≥ 150 kHz     Electrical power 1.35 kW at 90 kV, mA Range: (15-40) mA     Tube voltage 40-90 kV (≥ 2 kV steps)     Exposure time range 0.01-1.0 sec (0.01 sec steps)     Current Range: 20 mA at 40-60 kV, 15 mA at 62-80 kV, 10 mA at 82-90     KV     Power Supply Plug 3 Pin Flat with Fuse     Any upgradation under Contracted Period must be of Free Of Cost (FOC)     International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate     Calibration, Quality Control, Commissioning Certificate from Manufacturer     Made In: USA, UK, Japan, European Countries, Canada     Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).     X-ray Generator will be compatible to work under Room Temperature (5 −45) °C and Room Relative Humidity RH (30−85)% non-condensing all the times
X-ray Collimator	<ul> <li>Compact system consists of X-ray Generator, X-ray Tube &amp; X-ray Collimator         <ul> <li>Fully Automatic Multi-leaf X-ray Collimator</li> <li>Collimator LED Bulb</li> </ul> </li> <li>In-built Dual laser positioning pointer: Class III-a laser diode         <ul> <li>In-built Distance Measurement Tape</li> <li>Total filtration ≥ 2.5 mm Al</li> </ul> </li> <li>Any upgradation under Contracted Period must be of Free Of Cost (FOC)</li> <li>Made In: USA, UK, Japan, European Countries, Canada</li> </ul>



Anode

X-ray

X-ray

tube

heat

tube

inherent

storage

target

filtration:

capacity

angle

min

Focal spot ≥ 0.6 mm • X-ray Generator & X-ray Tube including Collimator, LASER Guide, Measurement Tape are Compact all together & must be of very light weight • The Whole Compact Single Unit X-ray System must be carried out easily by Hand or by Backpack • Any upgradation under Contracted Period must be of Free Of Cost (FOC) • International Quality Assurance Certification : FDA Certificate, CE Certificate, ISO Certificate · Calibration, Quality Control, Commissioning Certificate from Manufacturer • Made In: USA, UK, Japan, European Countries, Canada • Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). • X-ray Tube will be compatible to work under Room Temperature (5 -45) °C and Room Relative Humidity RH (30-85)% non-condensing all the times • Mobile X-ray Stand for holding & Positioning X-ray Tube • Mobile Chest Bucky Stand for holding & Positioning Flat Panel Detector • Mobile stand must be compatible & have all the provisions for the X-ray of ICU Patients on Bed, Fracture cases, Chest X-ray, all Universal X-rays on **Patient** Bed & Wall Height Adjustable Wall Stand for Holding FPD (Detector) Tube rotation 360 degree Foldable, rotatable & twistable stand Vertical Movement range (30 300) cm Large wheels with Lock & Unlock system for easy movement travel range Any upgradation under Contracted Period must be of Free Of Cost (FOC) • Weight ≤ 10 kg

kHU

16°

Αl

10

mm

≤

8.0

X-ray tube

X-ray Stand



• Detector

for General

Scintillator:

Radiography

Pixel size ≤ 100 μm  Reusable, Cleanable, Water, Drop & scretch proof Detector Safety Case / Bucky with and without grid for all Universal X-rays including Chest X-rays . Detector casing / Protective casing for 14" x 17" detector, Max. load for entire surface: 1040 kg, Max. point load: 200 kg/mm  Total Number Radiographic exposures per day on one battery load  Weight of Flat Panel Detector including Rechargeable Battery ≤ 3 kg  Scatter correction protection Detector Controlled by Laptop AEC mode for X-ray Exposure PACS, DICOM, Networking Compatibility Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility Any upgradation under Contracted Period must be of Free Of Cost (FOC) International Quality Assurance Certification : FDA Certificate, CE Certificate, ISO Certificate Calibration, Quality Control, Commissioning Certificate from Manufacturer Manufacturer Made In : USA, UK, Japan, European Countries, Canada Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 −45) °C and Room Relative Humidity RH (30−85)% non-condensing all the times
Case / Bucky with and without grid for all Universal X-rays including Chest X-rays . Detector casing / Protective casing for 14" x 17" detector, Max. load for entire surface: 1040 kg, Max. point load: 200 kg/mm  • Total Number Radiographic exposures per day on one battery load ≥ 200  • Weight of Flat Panel Detector including Rechargeable Battery ≤ 3 kg  • Scatter correction protection  • Detector Controlled by Laptop  • AEC mode for X-ray Exposure  • PACS, DICOM, Networking Compatibility  • Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility  • Any upgradation under Contracted Period must be of Free Of Cost (FOC)  • International Quality Assurance Certification : FDA Certificate, CE Certificate, ISO Certificate  • Calibration, Quality Control, Commissioning Certificate from Manufacturer  • Made In : USA, UK, Japan, European Countries, Canada  • Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).  • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times
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kg/mm  • Total Number Radiographic exposures per day on one battery load ≥ 200  • Weight of Flat Panel Detector including Rechargeable Battery ≤ 3 kg  • Scatter correction protection • Detector Controlled by Laptop • AEC mode for X-ray Exposure • PACS, DICOM, Networking Compatibility • Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility • Any upgradation under Contracted Period must be of Free Of Cost (FOC) • International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate • Calibration, Quality Control, Commissioning Certificate from Manufacturer • Made In: USA, UK, Japan, European Countries, Canada • Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 -45) °C and Room Relative Humidity RH (30-85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
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Scatter correction protection     Detector Controlled by Laptop     AEC mode for X-ray Exposure     PACS, DICOM, Networking Compatibility     Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility     Any upgradation under Contracted Period must be of Free Of Cost (FOC)     International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate     Calibration, Quality Control, Commissioning Certificate from Manufacturer     Made In: USA, UK, Japan, European Countries, Canada     Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).     X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
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Flat Panel Detector  • AEC mode for X-ray Exposure • PACS, DICOM, Networking Compatibility • Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility • Any upgradation under Contracted Period must be of Free Of Cost (FOC) • International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate • Calibration, Quality Control, Commissioning Certificate from Manufacturer • Made In: USA, UK, Japan, European Countries, Canada • Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
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<ul> <li>Wireless Detector must have WiFi, USB, LAN, WAN Connection Compatibility</li> <li>Any upgradation under Contracted Period must be of Free Of Cost (FOC)</li> <li>International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate</li> <li>Calibration, Quality Control, Commissioning Certificate from Manufacturer</li> <li>Made In: USA, UK, Japan, European Countries, Canada</li> <li>Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).</li> <li>X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times</li> <li>Total Number Radiographic exposures per day on one battery load</li> </ul>
Compatibility  Any upgradation under Contracted Period must be of Free Of Cost (FOC)  International Quality Assurance Certification: FDA Certificate, CE Certificate, ISO Certificate  Calibration, Quality Control, Commissioning Certificate from Manufacturer  Made In: USA, UK, Japan, European Countries, Canada  Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).  X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times
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Certificate, ISO Certificate  Calibration, Quality Control, Commissioning Certificate from Manufacturer  Made In: USA, UK, Japan, European Countries, Canada Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times
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Manufacturer  • Made In: USA, UK, Japan, European Countries, Canada • Vendor must do Preventive Maintenance, Quality Control, Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months). • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
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Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).  • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).  • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
Twice Per Year (Each Certification will have a Validity of 06 months).  • X-ray Flat Panel Detector will be compatible to work under Room Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
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Temperature (5 –45) °C and Room Relative Humidity RH (30–85)% non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
non-condensing all the times  • Total Number Radiographic exposures per day on one battery load
≥ 200
• Detector's Rechargeable Lithium-Ion Battery (≥ 2 Pcs as an extra)
with Charger Rack (having capacity to charge ≥2 Pcs of Rechargeable
Detector's Rechargeable Batteries  Batteries at a time)
• Voltage: 48 V (approximately)
• Capacity ≥ 3000 mAh
Any upgradation under Contracted Period must be of Free Of Cost  (FOC)
(FOC)
Made In : USA, UK, Japan, European Countries, Canada



Laptop	<ul> <li>Brand Equivalent Laptop: HP, Dell, Apple</li> <li>Original Operating System Software (OS) win7/10</li> <li>Original MS Office Professional Software</li> <li>Processor Intel Core i7 with Latest Generation with Intel Motherboard &amp; High Resolution &amp; Spped Graphics Card</li> <li>10 GB RAM, 1 TB SSD (Upgradeable)</li> <li>High Resolution Medical Grade Colour Display with Touch Screen</li> <li>Built-in Maintenance Free Rechargeable Lithium-ion Battery for Laptop</li> <li>CyD±RW</li> <li>Keyboard with Backlight LED</li> <li>Data Transmit &amp; Receiver Ports: USB3.0 (≥3 ports), SDMI, Networking Port</li> <li>Laptop Charger</li> <li>Power Supply Plug 3 Pin Flat with Fuse</li> <li>Any upgradation under Contracted Period must be of Free Of Cost (FOC)</li> </ul>	
Accessories (for X-ray machine)	<ul> <li>Lead Apron [0.5 mm Lead Equivalent Size: (110x 130) cm] (2 pcs)</li> <li>Lead Goggle [2 mm Lead Equivalent] (2 Pcs)</li> <li>Collar / Thyroid Guard [0.5 mm Lead Equivalent] (2 Pcs)</li> <li>Reusable, Cleanable, Water, Drop &amp; Scretch proof Detector Safety Case / Bucky with and without grid for all Universal X-rays including Chest X-rays. Detector casing / Protective casing for 14" x 17" detector, Max. load for entire surface: 1040 kg, Max. point load: 200 kg/mm (2 Pcs)</li> </ul>	
Training	<ul> <li>Vendor must provide System Core Training, Operation Training, Application Training Locally (by Local/Foreign Technical Expert &amp; Application Expert) before handover the system.</li> </ul>	
Compatibility	• The whole system must be compatible & have all the provisions (Softwares, Hardwares) for the X-ray of ICU Patients on Bed, Fracture cases, Chest X-ray, all Universal X-rays on Patient Bed & Wall	
Image Quality	High Resolution Medical Grade Image Quality of all X-ray Images	
Working Temperature (in °C)	• (-)10 to (+)70°C	
Working Relative Humidity (RH%) [Non-Condensing all the times]	• 10% to 90%	
System Upgradation (Both ardware & Software)	<ul> <li>Any upgradation of the system under Contracted Period must be of Free Of Cost (FOC)</li> </ul>	



Preventive Maintenance Frequency per Year	• Vendor must do Preventive Maintenance for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).
Quality Control (Frequency/Year)	• Vendor must do Quality Control for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).
Calibration Frequency per Year	• Vendor must do Calibration for the whole system with KV mater, mAs mater, Phantom, Simulator, X-ray Dosemeter and will Provide Certification Twice Per Year (Each Certification will have a Validity of 06 months).
Certifications for the whole system	<ul> <li>Calibration, Commissioning, Quality Control Certificate for the whole X-ray system from Manufacturer</li> <li>Vendor must do Calibration, Commissioning, Preventive Maintenance, Quality Control &amp; Provide said Certifications (Each Certificate is having 6 months Validity) for the whole X-ray system with KV, mAs, Phantom, Simulator and X-ray Dosemeter Twice per Year during the Contracted Period</li> </ul>
Documents	Vendor must provide Original Service Manual, Operation Manual from Manufacturer
Accessibility	Vendor must provide all Password (for Service, Administrative) from Manufacturer
International Quality Assurance Certification for whole System	• Quality Assurance Certification for whole X-ray System : FDA Certificate, CE Certificate
Total Weight of the whole system	<ul> <li>The Whole Compact Single Unit X-ray System must be carried out easily by Hand or by Backpack</li> <li>Total Weight of the Very Compact X-ray System including al Standard Accessories will be ≤ 30Kg</li> </ul>
Data Exchange Compatibility for the whole system	PACS, DICOM Compatibility
Network Compatibility for the whole system	• WiFi, USB, LAN, WAN, 10 base-T, 100 Base-TX, Half Duplex/Full Duplex (Auto Negotiation) Networking Connection Compatibility
Application of the whole system	• Indoor (Emergency), Covid-19 Patients, TB Patients, Fracture cases, General X-rays
Audio-Visual Alarm	• Yes
Error Log	• Yes
Event Log	• Yes
System Total Uptime (in %)	• System Total Uptime ≥ 95%



Safety / Protection	<ul> <li>Protection Battery over charge, Battery deep discharge, Reverse flow of current, Load short circuit, Reverse polarity</li> <li>ALARA for Radiology equipment and Bangladesh Atomic Energy Commission Safety Standard for Radiology Equipment,</li> </ul>
Made In	USA, UK, Japan, European Countries, Canada
Country of Shippment	USA, UK, Japan, European Countries, Canada
Country Of Origin	USA, UK, Japan, European Countries, Canada
Brand and Model References (or similar)	Delft model Light Backpack, Comfy model X-Buggy, Min X-ray HF 100H+ CMDR

#### DIAGRAM/ PHOTOS/ SKETCH FOR REFERENCE

Photo



NOTES AND OTHER REQUIREMENT		
Photos	Above photos are for reference only, the bidders may propose other models that inline with specification	
Product Delivery	The selected vendor shall deliver the product directly to the camps that will be specified by IOM	
Expected Time of Delivery	The selected vendor is expected to deliver the products within 15 days since the notice of award is issued.	
Bidding Documents	The bidders shall submit full set product information/specification sheet along with other mandatory bidding documents. The product specification shall include the confirmation for the compliance of relevant standards.	
Sample of Product	IOM may request the bidders to submit the sample of product during the bidding. The sample will be returned after the evaluation processes. Or, if it not possible, IOM may request to provide additional details of product information sheets.	
Warranty	Bidders shall confirm the product warranty period and if necessary shall indicate whether any conditions associate to the validity of warranty	

#### **Printer:**



## **PROJECT** Project Name **Supply of X-ray DICOM Dry Laser Printer** 1 Quantity **Project Requirement** Design (Yes/No) No Supply (Yes/No) Yes Installation (Yes/No) Yes

Yes

Yes

Testing (Yes/No)

Commissioning (Yes/No)



Calibration (Frequency/Year)	02 Times per Year (Each Calibration will have a Validity of 06 Months)
Quality Control (Frequency/Year)	02 Times per Year (Each Quality Control will have a Validity of 06 Months)
Preventive Maintenance (Duration)	02 Times per Year (Each Preventive Maintenance will have a Validity of 06 Months)
Troubleshooting Supports (Duration)	01 Year (Standard)



Warranty	<ul> <li>All Spare parts (01 Year) and All Software including Diagnostic Software (Unlimited)</li> <li>Warranty will start after successfully Installation &amp; Handover the whole system.</li> </ul>

	PRODUCT INFO
Product Name	X-ray DICOM Dry Laser Printer



Standard Reference and Declaration of Conformity	Comply with the requirements of all relevant Bangladesh Standards (BSTI), IEC Standards, ISO Standards, FDA Standards, CE Standards, whether or not these are specifically mentioned in the Specification.	
Application	Indoor for All kinds of Radiology Printouts	
GENERAL SPECIFICATION		
Number of X-ray Film	Number of X-ray Film Tray will be 3 (Three) for Universal Film sizes	



Size of X-ray Films	• Size of X-ray Films are of following 3 Sizes: (14x17) inch, (10x12) inch, (8x10) inch
Applicable film	Medical Dry DICOM Imaging Film DI-HL, DI-HLc, DI-ML, DI-HT, DI-AT
Film Type	• Light Exposed
Film Loading	Day Light Loading
Recording Method	LASER Exposure and Thermal Development



Film Base (Blue/Clear)	• Blue
Filming Technology	Filming Technology is LASER Exposure
Display	• High Resolution Color Display size ≥ (6x6)inch
Parameters Programmable	• Yes
X-ray Image Compatibility	• The whole system must be compatible & have all the provisions (Software's, Hardware's) for the X-ray Printouts for all Radiological Images (X-ray, CT Scam, MRI, OPG, Mammography, Nuclear Medicine, Computed Radiography)



Data Compatibility	<ul> <li>PACS, DICOM, Networking Compatibility</li> <li>Intended for providing diagnostic image data on the film by printing medical images transferred via DICOM Network and Archive in the PACS system.</li> </ul>



**Network Connection Compatibility** 

- WiFi, USB, LAN (10 Base-T / 100 Base-TX / 1000 Base-T Interface, Lan Cable Category ≥5E), WAN, 10 Base-T, 100 Base-TX, Half Duplex/Full Duplex (Auto-Negotiation) Networking Connection Compatibility
- Accessories equipment connected to analog & Digital Interfaces must be to the respective IEC Standards (IEC 60950 for Data Processing equipment and IEC 60601-1 for Medical Equipment), IEEE 802.3 Conformant HUB.



Power Supply (Input)	Must be Operated by Supply Mains Power (Single Phase, 220VAC, 50Hz)
X-ray Image Filming size in Printout (in %)	• 100% X-ray Image Filming size in Printout
Machine Base on Wheels	Wheels base with Lock system (for Front 2 wheels) & without Lock system (fro Raer 2 wheels)
Machine Positioning ZERO Level on Floor	Yes (by Manual Adjustment with Spirit Level)



X-ray Films (Consumables)	<ul> <li>LASER X-ray Films Sizes: (14x17) inch 2 Boxes</li> <li>LASER X-ray Films Sizes: (10x12) inch 2 Boxes</li> <li>LASER X-ray Films Sizes: (8x10) inch 1 Box</li> </ul>
Filming Format (Portrait & Landscape)	• 1, 2, 3, 4, 6, 8, 9, 12, 15, 16, 18, 20, 24, 25, 28, 30, 32, 35, 36, 40, 42, 48, 49, 54, 56, 63, 64, 70, 72, 80, 6 mix (for all formats) in Portrait • 1, 2, 3, 4, 6, 8, 9, 12, 15, 16, 18, 20, 24, 25, 28, 30, 32, 35, 36, 40, 42, 48, 49, 54, 56, 63, 64, 70, 72, 80, 4 mix (for all formats) in Landscape



Density Adjustment	Automatic (Built-in)
Pixel Size	• ≤50µm
Filming Processing Capacity per Hour	• ≥ 110 Images per Hour (for Film size 14"x17") and ≥ 160 Images per Hour (for Film size 10"x12")
Operation Interface	Color Touch Panel
Image Storage Capacity	• ≥ 512 GB (Upgradeable)
Exposure Resolution	• ≤ 14 Bits
LASER Handling Precautions	• LASER Product (IEC 60825-1:2014Ed.3.0 / EN 60825-1:2014 / AC:2017)



Semiconductor LASER Class	Semiconductor LASER Classs 3B (Embedded)
LASER Wavelength	• 659nm (TYP)
Beam Emittance	• Beam Emittance 20°
LASER Diode Output	• LASER Diode Output 130mW (CW)
Training	• Vendor must provide System Core Training, Operation Training, Application Training Locally (by Local/Foreign Technical Expert & Application Expert) before handover the system.
Power Cable	O1 Power Cable (including 3 Core (L-N-Ground)), Cable Length of 15 Feet 01 Pc



Working Temperature (in °C)	• (-)10 to (+)70°C
Working Relative Humidity (RH%) [Non-Condensing all the times]	• 10% to 90%
System Upgradation (Both ardware & Software)	Any upgradation of the system under Contracted Period must be of Free Of Cost (FOC)



	Vendor must do Prevenrive Maintenance for the X-ray DICOM Printer system with Photometer, Phantom, SMPTE Test Patterr confirm Density, Vertical & Horizontal lines on the X-ray Film), Settable (to check Unevenness on a Printed images & Grid Patt for checking Unevenness), 17 Steps Test Pattern (to Confirm Density) Twice per Year & provide said Certificate (Each Certific will have a Validity of 06 months) during the Contracted Period
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• Vendor must do Quality Control for the X-ray DICOM Printer system with Photometer, Phantom, SMPTE Test Pattern (to confirm Density, Vertical & Horizontal lines on the X-ray Film), Settable (to check Unevenness on a Printed images & Grid Pattern for checking Unevenness), 17 Steps Test Pattern (to Confirm Density) Twice per Year & provide said Certificate (Each Certificate will have a Validity of 06 months) during the Contracted Period



• Vendor must do Calibration for the X-ray DICOM Printer system with Photometer, Phantom, SMPTE Test Pattern (to confirm Density, Vertical & Horizontal lines on the X-ray Film), Settable (to check Unevenness on a Printed images & Grid Pattern for checking Unevenness), 17 Steps Test Pattern (to Confirm Density) Twice per Year & provide said Certificate (Each Certificate will have a Validity of 06 months) during the Contracted Period



	• Calibration, Commissioning, Quality Control Certificate for the X-
Certifications for the whole system	ray DICOM Printer system from Manufacturer • Vendor must do Calibration, Commissioning, Preventive Maintenance, Quality Control for the X-ray DICOM Printer system with Photometer, Phantom, SMPTE Test Pattern (to confirm Density, Vertical & Horizontal lines on the X-ray Film), Settable (to check Unevenness on a Printed images & Grid Pattern for checking Unevenness), 17 Steps Test Pattern (to Confirm Density) Twice per Year & provide said Certificate (Each Certificate will have a Validity of 06 months) during the Contracted Period



Documents	Vendor must provide Original Service Manual, Operation Manual from Manufacturer
Accessibility	Vendor must provide all Password (for Service, Administrative) from Manufacturer
International Quality Assurance Certification for whole System	• Quality Assurance Certification for whole X-ray System : FDA Certificate, CE Certificate
Total Weight of the whole system	• Total Weight of the X-ray DICOM Printer will be ≤ 120Kg
Dimensions (WxDxH) of Printer Unit (in mm)	• (W:610 * D: 630* H: 1125) mm
Power Consumption (kW)	• ≤1.5KW (Approximately)



Data Exchange Compatibility for the whole system	• PACS, DICOM Compatibility
Standard Reference and Declaration of Conformity	Comply with the requirements of all relevant Bangladesh Standards (BSTI), IEC Standards, ISO Standards, FDA Standards, CE Standards, whether or not these are specifically mentioned in the Specification.



Safety / Protection

• IEC Standards (IEC 60601-1 / EN60601-1 ), Electromagnetic Compatibility (EMC) Standards (IEC 60601-1-2 / EN60601-1-2), ANSI/AAMI Standard ES60601-1, Protection against Harmful Ingress of Water / Particulat Matter : IPX0, Protection Against Electric Shock : Class I Equipment, RF Emission CISPR Group-I, Class B, Harmonic Emission IEC 61000-3-2, Voltage Fluctuations/Flicker Emission IEC 61000-3-3, Electrostatic Discharge (ESD) IEC 61000-4-2, Electrical Fast Transient / Burst IEC 61000-4-4, Electric Surge IEC 61000-4-5, Voltage Dips, Short interruptions & Voltage Variations on Power Supply input Lines IEC 61000-4-11, Power Frequency (50Hz / 60Hz) Magnetic Field IEC 61000-4-8, Conducted RF IEC 61000-4-6, Radiated RF IEC 61000-4-3, Regulation EU 2017/745 regarding equipment manufacture.



Application of the whole system	Indoor for All kinds of Radiology Printouts
Audio-Visual Alarm	• Yes
Error Log	• Yes
Event Log	• Yes
Connection Compatibility for Several Systems through Wireess & Wired Network System	• Yes
Anti-cutter (for cutting Film pack edges)	• Yes
System Total Uptime (in %)	• System Total Uptime ≥ 95%
Made In	• USA, UK, Japan, European Countries, Canada



Country of Shippment	• USA, UK, Japan, European Countries, Canada
Country Of Origin	• USA, UK, Japan, European Countries, Canada
Brand and Model References (or similar)	Fuji Film model Dry Pix Edge 8000, Konica Minolta model Dry Pro 873 , AGFA model Dry Star 5503

DIAGRAM/ PHOTOS/ SKETCH FOR REFERENCE





Photo



#### NOTES AND OTHER REQUIREMENT (AS AN OPTIONAL)

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Bidders shall confirm the product warranty period and if necessary, shall indicate whether any conditions associate to the validity of warranty

### Offer Must be Inclusive Of Installation, Demonstration of operating procedure

- \*\* Please mention Brand Name, Model No, Manufacturing origin country & product color photo.
- \*\*Please mention warranty period & after sales service conditions.
- \*\* Proposals with incomplete product related information & delivery lead time will be treated as disqualified.
- \*\* Please provide relevant work experience/ work order copy for suppling X-Ray/Imaging equipements as a roof of experience.

Proposal can be submitted over email but make sure attachment size must not exceeds 8 MB. In that case upload your documents in google drive/one drive/drop box & send the link to IOMCxBprocure@iom.int or mdemirkiran@iom.int

Last Date of Submission the offer is 10.12.2021 at 4.00PM sharp. Late submission will be treated as disqualification.



Also Note,

- 1. For any sorts of miss calculation/ estimation at the quotation IOM would not be liable.
- 2. During supply the packaging should be clean and well binding.
- 3. Quotation may be submitted by email or directly submit to IOM, Cox's Bazar Sub Office, Muktijoddha Building Complex, Motel Road, Cox's Bazar, Bangladesh.
- 4. Please quote your price including VAT & Transportation Cost.
- 5. The quotation should be in the company's letterhead pad along with the necessary seal, signature & date is required.
- 6. The validation of quotation should be 60 days.
- 7. Delivery of commodity will be IOM Kutupalong/Teknaf Logbase.
- 8. VAT Challan must have to be attached during bill submission.
- 09. Please mention delivery Lead Time into quotation.
- 10. Payment Term: 20 Days max after invoice submission.

With this RFQ is the GIC which includes Instructions to Contractors, Technical Specifications and administrative requirements that Contractors will need to follow in order to prepare and submit their quotation for consideration by IOM.

IOM reserves the right to accept or reject any quotations, and to cancel the procurement process and reject all quotations at any time prior to award of Purchase Order or Contract, without thereby incurring any liability to the affected Contractor/s or any obligation to inform the affected Contractor/s of the ground for the IOM's action.

Very truly yours, DEMIRKIRAN Merve Aslihan Procurement & Logistics Officer

IOM is encouraging companies to use recycled materials or materials coming from sustainable resources or produced using a technology that has lower ecological footprints.