



# बुढीगंगा गाउँपालिका

## बुढीगंगा गाउँपालिकाको कार्यालय,

### हात्तिमुडा, मोरङ ।



१ नं. प्रदेश नेपाल ।

प.स. : ०७८/०७९

च.नं. :

## स्वास्थ्य उपकरण खरिदको सूचना

प्रथम पटक सूचना प्रकाशित मिति २०७८/०३/०७ गते

बुढीगंगा गाउँपालिकाको लागि देहाय बमोजिमका स्वास्थ्य उपकरणहरु आवश्यक भएकोले खरिद नियमावली २०६४ को परिच्छेद ५ को नियम ३१ (ख) अनुसार उत्पादक वा अधिकृत विक्रेताबाट निर्धारण दर (क्याटलक सपिड) विधिबाट खरिद गर्नुपर्ने भएको हुँदा त्यस्तो मालसमान उत्पादक वा विक्री वितरण गर्ने ईच्छुक आधिकारीक फर्म वा कम्पनी वा संस्थाले आफ्नो फर्म दर्ता, एजेन्सी दर्ता, नविकरण, मू. अ. कर दर्ता प्रमाणपत्रको प्रतिलिपि, आ ब २०७७/२०७८ को कर चुक्ता प्रमाणपत्रको प्रतिलिपि समावेश गरि सोही नियमावलीको नियम ३१ (ख) को उपनियम २ वमोजिम स्वास्थ्य उपकरण उत्पादकको आधिकारिक स्पेशिफिकेशन गुणस्तर मूल्य र सुविधा सहितको विवरण (क्याटलक वा ब्रोसर) संलग्न गरि यो सूचना प्रकाशित भएको मितिले ७ (सात) दिन भित्र कार्यालय समयमा सिलबन्दी प्रस्ताव दर्ता गराउन हुन उत्पादक वा आधिकारिक बिक्रेताको लागि यो सूचना प्रकाशित गरिएको छ । नियम अनुसार पेश हुन आएका प्रस्तावहरु सूचना प्रकाशन भएको मितिले ८ (आठौं) दिनको १ बजे यस कार्यालयमा खोलिनेछ ।

तपश्चिल

क्र सं	मालसामानको नाम	परिमाण	ईकाई	कैफियत
१	Computed Radiography (CR)	१	थान	सामानको स्पेशिफिकेशन यस कार्यालयको वेभ साइटमा उपलब्ध हुनेछ ।
२	X-RAY 500MA	१	थान	
३	USG, PORTABLE, COLOUR DOPPLER	१	थान	

नोट : बिस्तृत स्पेशिफिकेशन कार्यालयको Website: budhiganga.rm.gov.np मा हेर्न वा यस कार्यालयमा कार्यालय समयमा सम्पर्क गरी जानकारी लिन सकिनेछ ।

संजीव न्योपाने

प्रमुख प्रशासकीय अधिकृत

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**बुढीगंगा गाउँपालिका**  
**बुढीगंगा गाउँपालिकाको कार्यालय,**  
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**स्वास्थ्य उपकरण खरिदको सूचना**

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संजीव न्यौपाने

प्रमुख प्रशासकीय अधिकृत

प्रमुख प्रशासकीय अधिकृत



# Technical specification of Computed Radiography (CR) System

S.N.	Purchaser's Specifications(Budhiganga mun FY:78/79)	Bidder's Compliance Sheet		
		Yes/No	Page No. in Catalogue	Remarks
	Computed Radiography (CR) System			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	Description of Function			
a.	Radiography system to replace conventional Film/Screen based X-Ray processing techniques with Photostimulable Phosphor Plate technology to obtain digital X-ray images.			
2	Operational Requirements			
a.	The system shall be able to record X-Ray images on Imaging Plates (IP)			
b.	Convert these images from the IP into digital values and transfer these values to an image evaluation computer with predefined Image Processing Parameters.			
c.	Operationally and functionally equivalent to and better than the present film based system.			
3	System Configuration			
a.	Image Reader system: 01			
b.	CR Workstation: 01			
c.	RIS Interface: 01			
d.	Remote ID and Preview station: 01			
e.	Archiving System: 01			
f.	Dry imaging printer(film based), and double tray type :01			
4	Technical Specifications			
4.1	Image Reader			
a.	IP processing rate minimum 45 films/hr or more for 14 x 17 inches cassette.			
b.	Scanning mechanism to read, erase and process the images from the imaging plate. (IP)			
c.	Panel for indicating online status of the CR Reader in case of machine malfunction			
d.	Emergency Mode for accepting exposed cassettes without patient demographics for casualty trauma workflow requirements			
e.	Verification of the connectivity status of configured image destination			
f.	Spatial resolution of digital image 6-10 pixels/mm.			
g.	CR System should have data acquisition of 14 bits or more			
h.	X-Ray Generator compatibility with reputed manufacturers.			
i.	CR system should have the capability of processing the cassettes both in standard and high speed mode.			
j.	Image matrix at standard resolution (14 x 17) - 3000 x 4000 Row x Column			
4.2	CR Workstation:			
a.	Capable of Archiving and printing selected images to a standard DICOM destination in DICOM 3.0 format			
b.	Storing images in the local disk for predefined period.			
c.	Sorting of patient image based on name, date, exam etc.			
d.	Using predefined parameters or user defined and stored image parameters			
e.	Correcting typographical in patient demographic module, in case RIS connection was down and manual data entry was done.			
f.	Capability of changing R/L, Flipping, Rotating, Zooming, Collimating, annotating the incoming image.			
g.	Multi-image and slide formats			
h.	Capability of storing in CD/DVD.			
i.	Software for Advance Image processing, applications, display and quality monitoring.			
j.	Connectivity and compatibility to communicate to RIS/HIS and DICOM Compatible devices such as MR/CT/DSA Work station,			

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		Yes/No	Page No. in Catalogue	Remarks
	Computed Radiography (CR) System			
k.	Must provide for HL-7 compatible interface			
l.	Scanning gray scale resolution- 14bits/pixel or more.			
4.3	Console:			
a.	Software should have graphic selection to allow quick and easy picking of body parts and views			
b.	Software should have minimum 4 web enablement license for viewing of images to enhance productivity			
c.	Multifunctional console having all image optimization and post processing software like zooming, annotation, flipping, windowing and centering.			
d.	Additional computer with necessary software should be provided at the reception to feed the patient information to help ease the workflow.			
e.	Approx.19" LCD Monitor with CPU.			
4.4	Dry imaging printer(film based) 1unit:			
a.	Print images from CR workstation, in DICOM 3 format.			
b.	Printer should provide image depth of 14 bits or more			
c.	Mechanism to print images to 14x17 and 8x10 film sizes simultaneously.			
d.	Docked in processor.			
e.	Resolution> 500 DPI.			
f.	Processing capacity should be more than 50 films/hour or more for 14x17 inch film size			
g.	Shall be able to switch between Receiver Mode and Processor mode.			
h.	Printer should have dry Laser imager Technology			
4.5	IP/Cassettes size:			
a.	CR system should be provided with the following cassettes and imaging plates.			
b.	14 x 17 in: 1 Pcs.			
c.	10 x 12 in: 1 Pcs.			
d.	8 x 10 in: 1 Pcs.			
5	Accessories, spares and consumables			
5.1	Accessories:			
a.	Computer and Printer			
b.	At least Latest model Computer having Intel i3 processor and 4 GB RAM , 500GB storage and approx. 19"LCD Monitor- 1 set			
c.	Must provide online UPS for at Least 2 hour battery backup.			
d.	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			
6	Operating Environment			
a.	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
b.	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
7	Standards and Safety Requirements			
a.	Must submit ISO13485:2003/AC:2007 for Medical Devices AND			
b.	CE (93/42 EEC Directives) & USFDA approved product certificate			
c.	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
8	User Training			
a.	Must provide user training (including how to use and maintain the equipment).			
9	Warranty			
a.	Comprehensive warranty for 1 years after acceptance.			
10	Maintenance Service During Warranty Period			
a.	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required			
11	Installation and Commissioning			

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# **Technical specification of Computed Radiography (CR) System**

S.N.	Purchaser's Specifications(Budhiganga mun FY:78/79)	Bidder's Compliance Sheet		
		Yes/No	Page No. in Catalogue	Remarks
	<b>Computed Radiography (CR) System</b>			
a.	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
<b>12</b>	<b>Documentation</b>			
a.	User (Operating) manual in English			
b.	Service (Technical / Maintenance) manual in English.			
c.	Certificate of calibration and inspection from factory.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.

*(Signature)*

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*(Signature)*



**पमस्व प्रशासकिय अधिकृत**



# TECHINICAL SPECIFICATION FOR X-RAY 500 MA

S. N.	Purchaser's Specifications(Budhiganga mun FY:78/79)	Bidder's Compliance Sheet		
		Yes/No	Page No. in Catalogue	Remarks
	<b>X-ray,500ma</b>			
	<b>Manufacturer</b>			
	<b>Brand</b>			
	<b>Type/Model</b>			
	<b>Country of Origin</b>			
<b>I</b>	<b>Description of Functions</b>			
1.1	A general purpose X-ray machine for routine X-ray examinations at healthcare facilities.			
<b>2</b>	<b>Operational Requirements</b>			
2.1	It shall be suitable to be used for adult and paediatric patients in general Radiography examination.			
<b>3</b>	<b>System Configurations</b>			
3.1	X-ray Generator, 1 unit			
3.2	X-Ray tube & tube support system, 1 unit			
3.3	Radiographic patient table, 1 unit			
3.4	Floor mounted bucky stand, 1 unit			
<b>4</b>	<b>Technical Specifications</b>			
	<b>X-ray Generator:</b>			
1	Bidder shall indicate brand and model information here and provide technical data document for X-ray generator offered			
4.1	Line frequency or high frequency generator.			
4.2	Generator Output: approx. 40 kW (500mA at 100kV)			
4.3	Radiographic voltage: approx. 40 kV to 120kV, in 1kV step or better			
4.4	Radiographic current: 10 to 500mA or better			
4.5	Exposure time: 0.01sec (1msec) - 6sec or better			
4.6	Anatomical Programmable Radiographic mode adds advantage OR other system.			
4.7	Shall come with overload protection device.			
4.8	Power supply: 3 phase, 380-415V 50/60Hz or single phase			
<b>II</b>	<b>X-Ray Tube:(approx.)</b>			
4.1	X-ray tube rotating: +/-120°.			
4.11	Large focus not more than 1.2 mm.			
4.12	Small focus not more than 0.6 mm.			
4.13	Maximum tube voltage 120 KV.			
4.14	Filtration: min 2.5mm Al equivalent.			
4.15	Cooling method passive or forced air and/or oil cooling.			
4.16	Anode rotating speed: More than 3000 rpm.			
4.17	Anode heat capacity shall not be less than 150 KHU.			
<b>III</b>	<b>Radiography Patient Table:(approx.)</b>			
4.18	Radiography table shall be fixed height or height adjustable.			
4.19	Come with grid and cassette tray, with grid ratio: not less than 10:1. Grid line number: 40 line/cm. Focus distance: 115cm.			
4.2	Cassette size: accept all sizes from cassette 5"x7" cm to 14"x17" type.			
4.21	Radiography table shall be fixed height of about 60cm.			
4.22	Table top to film distance: approx. 6cm.			
4.23	Table top transverse movement : approx. ±14cm.			
4.24	Table longitudinal movement : approx. ± 29cm.			
4.25	Table top dimension: approx. 2000 mm x 800 mm.			
<b>IV</b>	<b>Floor Mounted Bucky Stand:(approx.)</b>			
4.28	Vertical travel: from 460-1700mm or in the range.			
4.29	Cassette size: accept all sizes from 5"x7" to 14"x17".			
<b>V</b>	<b>Floor Mounted Tube Stand:(approx.)</b>			
4.33	Longitudinal travel: approx. 1750mm.			
4.34	Vertical travel: from 630 -1850mm or in the range.			
4.35	Movement arrested by electromagnetic brakes or manual brakes.			
4.36	Rotation of tube arm around vertical axis: 180°; lockable at 0° to +/- 90°.			
<b>VI</b>	<b>Collimator:</b>			
4.37	Manually adjustable.			
4.38	Manually selectable filters adds advantage.			
4.39	Light localizer with timer controlled light.			
4.4	Built-in light switch should be provided.			

बुधगंगा माउण्टेड बक्य स्टैंड  
यसो कम्प्याउन्सको कार्यालय  
भारतपुर, मोरङ  
पदसं. नं. १, काठमाडौं

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एमएस प्रशासनिक अधिकृत

S. N. Purchaser's Specifications(Budhiganga mun FY:78/79)		Bidder's Compliance Sheet		
	X-ray,500ma	Yes/No	Page No. in Catalogue	Remarks
4.41	Turning angle should be min +/- 45 degree.			
4.42	Halogen lamp.			
VII	Control Console:			
4.43	Digital Display.			
4.44	Minimum 3 Point Exposure Technique.			
4.45	Status display, error display.			
5	Accessories, Spare Parts and Consumables			
5.1	Accessories:			
	• Lead apron, light weight with Lead equivalence 2mm-01 nos.			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	Operating Environment			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 380-415VAC 3 phase 50Hz fitted with appropriate plug for X-ray generator fitted with appropriate plug for other units. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	Must submit ISO 13485:2003/AC: 2007 AND			
7.2	CE (93/42 EEC Directives) or AERB OR USFDA approved product certificate.			
	Shall meet:			
7.3	• IEC 60601-1-3 - Part 1: General Requirements for safety - Collateral Standard: General Requirements for Radiation Protection in Diagnostic X-Ray Equipment.			
	• IEC 60601-2-7 - Part 2-7: Particular Requirements for the Safety of High-Voltage Generators of Diagnostic X-Ray Generators.			
8	User Training			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	Comprehensive warranty for 2 years from acceptance.			
10	Maintenance Service During Warranty Period			
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.			
11	Installation and Commissioning			
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	Documentation			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			

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पमस प्रशासक अधिकृत



**TECHNICAL SPECIFICATION FOR USG, PORTABLE, COLOUR DOPPLER**

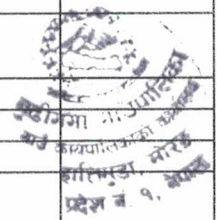
S. N.	Purchaser's Specifications(Budhiganga mun FY:78/79)	Bidder's Compliance Sheet		
		Yes/No	Page No. in Catalogue	Remarks
	<b>USG Portable Colour Doppler</b>			
	<b>Manufacturer</b>			
	<b>Brand</b>			
	<b>Type/Model</b>			
	<b>Country of Origin</b>			
<b>1</b>	<b>Description of Functions</b>			
	A general purpose notebook-type colour Doppler ultrasound imaging system.			
<b>2</b>	<b>Operational Requirements</b>			
	It shall operate on AC power supply as well as built in rechargeable battery. The machine is intended to be carried to the field or the patient ward with the inbuilt battery system to examine patients who could not come to USG room.			
<b>3</b>	<b>System Configurations</b>			
	A Portable colour Doppler ultrasound imaging system, 1 unit.			
	B Following transducers or similar frequency range to be quoted as standard:			
i	1 unit of broad bandwidth of approx. 2 - 6MHz convex array probe for OB/GYN and abdominal application.			
iii	1 unit of Black & White thermal printer.			
<b>4</b>	<b>Technical Specifications</b>			
	<b>Main unit:</b>			
A	The system must be latest generation technologically advanced Digital Portable Color Doppler system, with physical alphanumeric and Backlit keyboard,			
B	System must be offered with a very high dynamic range of at least 200db to pick up subtle echoes.			
C	System must be offered with a minimum 15 inch Widescreen High Resolution Medical grade monitor. And monitor itself can be swiveled independently at least 20 degree.			
D	System should have at least 1 active universal probe ports,			
E	Operating modes B-mode, M-mode, B/M Mode, , PW Doppler,CW etc.			
F	System should support broad band probes spanning a frequency of 1-16MHZ.			
G	In-built hard disk with minimum capacity of 500 GB. And built-in battery should support at least 90 minutes of scanning.			
H	System must be offered with Speckle Reduction imaging: Image processing technique to remove speckle and clutter artifacts.			
I	System should have facility of DICOM, at least 2 USB ports.			
J	System should be capable of scanning depth of at least 30cms. Scanning Depth should be clearly mentioned in the technical quote. If not mentioned please attach a letter from manufacturer along with the technical bid clearly stating the scanning depth in the offered system.			
K	System must be offered with 8 TGC slide pot with independently adjustable Gain control.			
L	Real time flow volume analysis should be available.			
M	The system should have all measurement packages: Abdominal, OB, GYN, etc.			
N	System should have Digital zoom facility for region of interest.			
O	System should have Trapezoid Imaging, Spatial Compound Imaging, B steer.			

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**पमस प्रशासक व अधिकृत**



S. N. Purchaser's Specifications(Budhiganga mun FY:78/79)		Bidder's Compliance Sheet		
	USG Portable Colour Doppler	Yes/No	Page No. in Catalogue	Remarks
R	The system should have Gain of 1~255 adjustable.			
S	The system should have quick measurement, which can be defined & select by one button.			
T	The system should have user define keys for friendly operation.			
5	<b>Accessories, Spare Parts and Consumables</b>			
A	All standard accessories/consumables/parts (including 2 x 5Ltr. Jar of ultrasound gel) required for the proper operation of the above item shall be included in the offer.			
B	Must provide branded USG Trolley			
6	<b>Operating Environment</b>			
	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug.			
7	<b>Standards &amp; Safety Requirements</b>			
A	Must submit ISO13485:2003/AC:2007 for Medical Devices AND			
B	CE (93/42 EEC Directives) and USFDA approved product certificate.			
C	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.			
8	<b>User/Technician Training</b>			
	The Supplier shall conduct user/technician training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	<b>Warranty</b>			
	Comprehensive warranty for 2 years after acceptance.			
10	<b>Maintenance Service During Warranty Period</b>			
	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11	<b>Installation and Commissioning</b>			
	Supplier must accomplish proper installation & commissioning of equipment onsite.			
12	<b>Documentation</b>			
A	User (Operating) manual in English.			
B	Service (Technical / Maintenance) manual in English.			
C	List of important spare parts and accessories with their part number and costing.			



**Note:**

Bidder must completely fill the Technical Specification Form (TSF).

Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted.

Failure in doing so may lead to rejection of bid from technical committee.

**Biomedical Engineer**

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