



**Government of West Bengal**  
**Office of the Medical Superintendent Cum Vice Principal**  
**School of Tropical Medicine, Kolkata-700073**  
**Email-msvp@stmkolkata.org Phone: 033-22123697/98**

Memo No: STM/MSVP/270/2018

Date: 19/12/2018

**E-TENDER NOTICE FOR THE PROCUREMENT OF EQUIPMENT FOR THE DEPT OF LABORATORY MEDICINE  
OF SCHOOL OF TROPICAL MEDICINE KOLKATA-700073  
(Through Pre-qualification)  
(Submission of Bid through NIC e- tender portal)**

The MSVP, School of Tropical Medicine Kolkata-700073, is going for e-Tender on behalf of the Health & Family Welfare Department, Government of West Bengal for obtaining the rate of Instruments from bonafide Manufacturer/Direct Importer/Authorized Distributors. Necessary earnest money to be submitted for participation in the Tender is appended in the table below. Exemption of EMD is applicable to agencies having valid, item specific certificate issued by appropriate authority of Govt. of West Bengal.

**List of instruments:**

A)

Serial No	Name of equipment	Quantity	Department	Earnest Money
1	Thermal Cycler	01	Department of Laboratory Medicine, STM	Rs. 7000.00

B)

Serial No	Name of equipment	Quantity	Department	Earnest Money
1	Automated Micro plate ELISA Reader	01	Department of Laboratory Medicine, STM	Rs. 3,100/-

C)

Serial No	Name of equipment	Quantity	Department	Earnest Money
1	ULTRA LOW FREEZER (-86°C)	01	Department of Laboratory Medicine, STM	Rs. 7,000/-

**All bidders must complete their technical demonstration of their quoted items within the stipulated time given from to the concerned department.**

### 1. General Instructions:

In the event of e-filing, intending bidder may download the tender documents free of cost from the website: <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate or from the Health & Family Welfare Department's website [www.wbhealth.gov.in](http://www.wbhealth.gov.in).

### 2. Submission of Bids:

Both Technical Bid and Financial Bid are to be submitted concurrently duly digitally signed, in the website <http://wbtenders.gov.in>. All papers must be submitted in English language.

### 3. Time Schedules:

The time schedule for obtaining the bid documents, pre bid meetings, registration with the tendering authorities, the submission of bids and other documents etc. will be as per **the list provided in clause no 23** as given below.

### 4. Eligibility for Quoting:

**Only Manufacturers/direct Importers/Authorized Distributors are eligible for quoting.** The price is to be quoted in Indian Rupees including cost of insurance, packing, forwarding, freight charges, clearing charges and installation of the new instrument and exclusive of GST and other taxes which are to be quoted separately in the BOQ. Agency commission is not permissible.

### 5. Submission of Tender:

The tender is to be submitted in Two Bid System (Technical Bid or Bid A & Financial Bid or Bid B).

#### (A) Technical Bid or Bid A:

(a). Statutory Cover Containing the following documents:

##### 1. **COVER "A":**

**File containing Technical Bid only - single file with multiple scanned pages containing Statutory and My documents separately.**

#### **"BID A": PART I**

(SINGLE FILE MULTIPLE PAGE SCANNED)

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sl. No.		Page no
1	<b>Duly filled in CHECK LIST in the prescribed format. Page number of documents must be mentioned in the check list before uploading the same.</b>	
2	Application in the prescribed format given in Annexure I	
3	Authorization letter of signatory from Company in Annexure II	
4	Copy of agreement between the manufacturer and the Distributor in Annexure III	
5	No conviction certificate in the form of an Affidavit as per Annexure-IV	
6	A Proof of submission of applicable EMD	

#### **"BID A": PART II**

Technical specifications of Instrument (in PDF format). Must mention Make, Model, exact features of the offered item against each point given in the specification chart). **Improper filling &/or suppression of facts/false statement will lead to disqualification and penalty in the form of permanent black listing.**

#### **MY DOCUMENTS Containing the following documents:**

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sn. No.	Category	Sub Category	Sub Category Description	Page No
A	Certificates	A1. Certificates	PAN Card of the authorized signatory	
			Professional Tax Registration certificate	
			PUC in respect of the manufacturing unit	
			GST Registration certificate	
B.	COMPANY DETAILS	B1. COMPANY DETAILS 1	Certificate of country of origin	
			Registration with Registrar of Companies	
			Trade License in the name of participating firm	
C.	CREDENTIAL	C1: CREDENTIAL 1	Manufacturing License with validity	
			Import License with validity (for importers)	
		C2 : CREDENTIAL 2	Manufacturer's guarantee(in case of Distributors and Direct Importer, to be obtained from manufacturer)	
			A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item. List of purchaser in Govt. Institutions of repute, for last two years	
D.	FINANCIAL INFO	PAYMENT CERTIFICATE 1	Income Tax Returns submitted for the Financial year 2015-16, 2016-17 & 2017-18	
		PAYMENT CERTIFICATE 2	VAT/CST/GST Returns (of the last quarter) for the year 2015-16, 2016-17 & 2017-18	
		Audited P/L & BALANCE SHEET	P/L & Balance sheet of 2015-16, 2016-17 & 2017-18	

**(B) Financial Bid Bid B**

**COVER "B":** Separate file containing financial document only.

(a) Financial Bid: BOQ in INR (in excel sheet)

The folder marked as "Financial Bid" shall contain ALL INCLUSIVE PRICE in INR only and should include base price along with the cost of allied works and services which are to be undertaken (like installation, commissioning of equipment or PC etc.), cost of insurance, packaging, forwarding, delivery charges, clearing charges of the new instrument to be purchased. **GST and any other applicable tax. should be quoted separately. Five years CAMC rate should also be quoted separately** in the template for Bill of Quantities (BOQ). However, the L1 will be determined on base price plus admissible taxes only. GST quoted will be directly remitted to Government account as per existing norms of Finance Department.

***The tenderers are required to submit the hard copies of Bid-A (Part-I & Part-II) by speed post/ courier, to the office of the MSVP, School of Tropical Medicine, Kolkata. Submission of hard copy is for reference only while examining the technical bid online and will not be treated as substitute for online submission. Submission of hard copy of Bid B is totally prohibited.***

**6. Evaluation of Tender:**

During tender evaluation process, "Bid A" will be opened first. Those tenderers who would qualify the Statutory & Non-Statutory requirements on the basis of technical and commercial documents will be

identified and "Bid B" i.e. financial bid of only those qualified bidders will be opened. Verification of hard copies of the audited balance sheet and Profit & Loss Accounts of the Tenderers for the last three years will be made if deemed necessary before opening the Financial Bid (Bid B) of the technically qualified bidders. If found suitable on the basis of above pre-qualification, the tenderer quoting the lowest rate, will be considered as successful.

#### **7. Earnest Money:**

The earnest money of the tenderer is liable to be forfeited if the tenderer withdraws his tender as a whole or for any particular item or items at any stage after opening of the tender or fails/refuses to enter into written agreement for any or all of the items of his accepted bid within the time specified when requested to do so or fails to furnish Performance Bank Guarantee within the stipulated time. **EMD should be deposited online as prescribed in Government Order no. 3975-F(Y) dated 28/07/2016. (Order copy is available at the site-www.wbfin.nic.in)** Hard copy of Bid A should reach the office on or before the stipulated date as mentioned in clause 23.

#### **8. Rate:**

The price is to be quoted in INR only including cost of insurance, entry tax, packaging, forwarding, delivery charges, clearing charges and installation of the new instrument. The basic rate should be furnished inclusive of Transportation Cost, Insurance, Testing Charges, Incidental Charges etc. but excluding GST and any other applicable taxes etc. which should be quoted separately in the template for Bill of Quantities (BOQ).

#### **9. Order & Supply:**

The tendering authority has the liberty to ask for **performance demonstration** of any item during any stage of the tender process, before placing order for supply. In case of dissatisfaction, the authority will have the right to disapprove the offer of L1 bidder and go for the next bidder. Orders for supply of the approved products will be placed with the successful tenderers after execution of agreements and such supply shall have to be made in such installments as may be fixed or spread over the period to be specified in the supply orders to be made in pursuance of the agreements. The equipment is to be transported in such packaging so as to avoid damage to primary package of manufacturer. The successful tenderer will have to supply within the specified time schedule that had been assured at the time of selection as supplier.

**The tendering authority will be at liberty to enhance the quantity of the item tendered up to 40% of the original required quantity. Bidder will have to consider the same while bidding as supply of the enhanced quantity will be mandatory as the original one.**

#### **10. Withdrawal /Cancellation & Purchase Policy of Tendering Authority:**

The tendering authority reserves the right to withdraw any item from the tender at any stage. The selection of such item, if already made in favour of any tenderer, shall be treated as cancelled. The tendering authority reserves the right to reject or accept any tender or part thereof at any stage or to split any tender without assigning any reason. Withdrawal of tender or any revision after submission of tender by the tenderer will not be allowed.

Purchase will, however be made following the existing purchase policy of the Govt. of West Bengal and its amendment(s) made from time to time. The purchase policy of the State Government as provided in the West Bengal Financial Rules, the policy of price preference in particular incorporated under

Notification No. 10500-F dated 19.11.04, 5400-F(Y) Dated 25/06/2012 and subsequent relevant orders should be observed in considering the tenders.

#### **11. Important Instruction with regard to Submission of Tender:**

The rate should be quoted in Indian Rupees for a particular brand or model (model no. of the offered item only must be mentioned in the appropriate column of the 'Tender Form'. Alternative offer will not

be accepted). The tender shall be cancelled for the quotation of item without its brand name, model, model no. etc. Detail information regarding the manufacturer and the item quoted in the 'Tender Form' should be furnished.

#### **12. Spare Parts:**

The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipment and the complete system for at least five years on a continuing basis. However, this does not relieve the supplier of any warranty obligations under the contract.

#### **13. Guarantee / Warranty Period:**

i) The machine/Instrument should be covered by free on-site comprehensive Warranty for one year after successful installation. The tenderers must quote for 5 (Five) years' comprehensive on-site AMC of entire system (including all spares & labour) after the date of completion of free warranty period. The CAMC charges for 5 years to be quoted in the BOQ, will however be determined on extant Govt. rules in this regard.

ii.) All faults appearing and their rectification shall be periodically advised to the institute, the period being not more than two weeks.

iii.) Any lacuna or lacunae noticed in the functioning of the installation as a result of any design or other feature shall be rectified by the supplier free of cost within 72 hours of call log.

#### **14. After Sales Services and Maintenance Contract:**

After sales service must be provided by the supplier, during and after warranty period of the equipment. Selected vendor will remain liable to attract penalty for violation of machine downtime as per agreement. The selected vendor or his authorized servicemen has to attend the machine within 72 hours of Call Log. It is desirable to have a fully equipped service centre in or around Kolkata.

#### **15. Delivery, Installation and Commissioning**

i. Delivery of the goods at the purchaser's premises shall be completed by the Supplier in accordance with the terms specified by the purchaser.

ii. The installation, testing and commissioning of the proposed system shall be completed in accordance with the order.

iii. All items are to be delivered within six weeks from the date of placement of order.

iv. In case of distributor, the firm should be direct distributor of manufacturing unit. **Sub distributor authorization by distributor will not be accepted at all.**

#### **16. Penalty Clauses:**

PENALTY FOR FORMATION OF CARTEL OR FURNISHING OF FRAUDULENT/ MISLEADING DOCUMENTS: If during the tender process or at any stage during the validity of the tender period, it is found that a tenderer(s) has formed a cartel in what so ever form or name to fix up the rates or suppliers to the detriment of the fairness of the tender process, penal measures shall be initiated. Similar penal measures shall also be initiated against those tenderers who have submitted false/ misleading/ fraudulent documents or made incorrect declarations. The penal measure will be forfeiture of Earnest Money, forfeiture of Performance Bank Guarantee if enlisted as a supplier in addition to any other legal action against the firm.

#### **17. Appeal:**

Appeal against the decision of the MSVP, School of Tropical Medicine, Kolkata and then to impose such a penalty will lie with Tender Selection Committee. Review against the decision of the Tender Selection Committee (TSC) will lie with Health & F.W. Dept. of the Govt. of W.B. The Special Secretary/Secretary/Principal Secretary will be the appellate authority within the Department of Health & Family Welfare, Government of West Bengal. Before imposing any penalty as per clauses 20, 21 and

22 the concerned supplier may appeal to the authority citing the proper reasons for non- imposing the penalty as stated.

**18. Agreement:**

On a tender being accepted, intimation of acceptance will be forwarded to the tenderer by MSVP, School of Tropical Medicine, Kolkata. After communication of the same, the tenderer will have to execute agreement in the prescribed form with the MSVP, School of Tropical Medicine Kolkata. In case any direct purchasing unit wishes to go for a separate agreement, the head of the purchasing unit must get written permission to that effect from his controlling authority. This present document and the tender forms filled in by the tenderer or copies thereof in so far as they are not inconsistent with these terms & conditions will be incorporated as part of the agreement. Such agreement will be binding on the tenderer.

**19. Validity Period of Agreement:**

The contract period will be for a period 01 (one) years from the date of finalization of tender **which can be extended for a further period of 6 months if Tender Selection Committee feels necessary.**

**20. Performance Bank Guarantee:**

The performance bank guarantee will be mandatory for all suppliers and will not be waived in any case. The successful tenderers shall be required to furnish the 'Performance Bank Guarantee' from any Nationalized/Scheduled Bank acceptable to Govt. of West Bengal for One year @ 10% of quoted base rate per item for which the tenderer has been selected as supplier. The performance bank guarantee will have to be renewed after completion of Free Warranty period, for additional 5 (Five) years under the paid CAMC period before transfer of the CAMC amount to bidder's account. Mentioning of West Bengal Government Pooling Account for Performance Bank Guarantee No. 000605030134 IFS Code ICIC0000006 MICR 70229002 at ICICI Bank, RN Mukherjee Road Branch, Kolkata on the body of Performance Bank Guarantee is made mandatory vide Finance Department GO No. 2691-F(Y) dated 02/05/2017.

**21. Inspection:** Before submitting the tender, the intending tenderers should thoroughly get acquainted themselves with the proposed supply and installation by local inspection of site and take into consideration the site condition and other criterion for effecting smooth supply. No claim whatsoever will be entertained afterwards.

**22. Payment Terms:**

Payment will be made electronically by Govt. of West Bengal approved system after execution of due supply and successful installation as ordered, subject to :

16.1.1 Submission of Performance Bank Guarantee in terms of Clause 20 and subject to penalty clause in terms of Clauses 16.

ii. Supply of the materials as per specification as provided in the tender documents and the catalogue. Supply of the materials must be made within the stipulated period as specified in the work orders.

iii. On being selected, the successful vendors will have to submit one application to the MSVP, Calcutta School of Tropical Medicine, Kolkata stating the name of the payee/recipient, Bank account no with IFS code of the payee/recipient for making e-payment. Payment will only be released after satisfactory installation and verification of following items-

1. Supplier's invoice in original
2. Challan and installation certificate
- 3 Any other thing of importance on the discretion of College Authorities

**23. Dates & Information:**

S. No	Items	Dates
1	Date of uploading of N.I.T. Documents (online) from this end.	20.12.2018, 1.00 P.M.
2	Documents download start date (Online)	20.12.2018, 1.00 P.M.
3	Date of hoisting of documents at Departmental Website ( <a href="http://www.wbhealth.gov.in">www.wbhealth.gov.in</a> )	20.12.2018, 1.00 P.M.
4	Date of Pre Bid Meeting and workshop with the intending bidders at the office of the MSVP of Calcutta School of Tropical Medicine.	3.01.2019, 1.30 P.M
5	Bid Submission starting (On line)	8.01.2019 4.00 P.M. onwards
6	Bid Submission closing (On line)	16.01.2019 at 4 P.M.
7	Submission of hard copies of Technical Bid	17.01.2019 by 4 P.M.
8	Bid opening technical bid(online) (Bid A )	18.01.2019 at 4 P.M.
9	Date of uploading list for Technically Qualified Bidder (online)(Bid A)	21.01.2019 11 A.M. onwards.
10	Date for demonstration of the instruments for qualified bidders at Department of Laboratory Medicine, STM.	22.01.2019 11 A.M. onwards
11	Date & for opening of Financial Proposal (Bid B) (Online)	To be declared later
12	Date of uploading of list of bidders along with the approved rate	To be declared later

MSVP, School of Tropical Medicine, Kolkata, **reserves the right to change the above schedule in case of any exigencies after putting up a notice in the departmental website and Notice Board of School of Tropical Medicine, Kolkata.**

**24. Validity of Tender:**

- i. The tender will remain valid up to 1 (one) year from the date of finalization of tender **which can be extended for a period of 6 months**. Any objection raised by any bidder in this respect will not be entertained. No informal tenderer will be entertained in the bid further.
- ii. During the scrutiny, if it comes to the notice of tender, inviting authority that the credential or any other paper found incorrect/ manufactured/ fabricated, that bidder would not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice.
- iii. Prospective bidders must take training from authorized agencies before submission of their bids.
- iv. The Tender Selection Committee reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

**25. NO CONVICTION CERTIFICATE:**

No conviction certificate in the form of an Affidavit is to be submitted is to be prescribed pro-forms as Annexure-IV attached herewith form Notary Public/Judicial Magistrate/Executive Magistrate.

MSVP

School of Tropical Medicine  
Kolkata-700073  
Prof. Subhasish Kamal Guha  
Medical Superintendent Cum Vice Principal  
Calcutta School of Tropical Medicine  
Kolkata 700073



**CHECK LIST (MUST BE PROPERLY FILLED)****NOTE: For Non applicability for some documents please mention “NA” in the check list.**

S. No	Item	PI put tick or NA	Page No.
1	Application submitted in Annexure I		
2	Annexure II (Authorization letter of signatory from the Company)		
3	Annexure III (Copy of agreement between the Manufacturer and the Direct Importer/Distributor)		
4	No conviction certificate in the form of an Affidavit as per Annexure-IV.		
5	Income Tax Returns submitted for the Assessment years 2015-16, 2016-17 & 2017-18		
6	VAT/CST/GST Returns (of the last quarter) for the years 2015-16, 2016-17 & 2017-18		
7	GST Registration certificate		
8	PAN Card of the organization and authorized signatory.		
9	Manufacturer’s guarantee (in case of Distributors and Direct Importer, to be obtained from manufacturer)		
10	Audited P/L & Balance sheet of 2015-16, 2016-17 & 2017-18		
11	Technical specifications of Instrument (in PDF/Excel format. Must mention Make, Model, exact features of the offered item against each point given in the specification chart).		
12	Trade License in the name of participating firm		
13	PUC in respect of the manufacturing unit		
14	Certificate of country of origin		
15	Registration with Registrar of Companies		
16	Valid Manufacturing License		
17	Import License with validity (for importers)		
18	List of purchaser in Govt. Institutions of repute, for last two years		
19	A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item.		
20	A Proof of submission of applicable END		

**ANNEXURE-I**

**APPLICATION FORMAT**

(To be furnished in the Company's official letter pad with full address and contact no etc)  
To The MSVP, School of Tropical Medicine, Kolkata-700073.

Sub: Tender No.-----Dt.------(Name of the Item -1)-----2)-----  
-----3)-----4)-----

----) for purchase and installation of equipment for department of ....., School of Tropical  
Medicine, Kolkata-700073.

*Ref:-*

*Sir,*

Having examined the pre-qualification & other documents published in the N.I.T, I /we hereby  
submit all the necessary information and relevant documents for evaluation:

1. That the application is made by me / us on behalf of.....

In the capacity of.....duly authorized to submit the offer. The  
authorization letter from the Company is attached in Annexure II.

2. We accept the terms and conditions as laid down in the NIT mentioned above and  
declare that we shall abide by it for throughout the tender period and its extensions, if any.

3. We are offering rate for the following item /items and assured supply to the Health &  
Family Welfare Department, Government of West Bengal as per Table-1 (Instrument  
Specification)

4. a. We propose that the order and bill should be raised in our name.

For liasoing, we have appointed M/S ..... having its office at  
..... (Address, contact no and e mail address) as  
C&F agent /Liasoner /Contact person/..... Others (strike out whichever is not applicable) as  
per clause ..... of the NIT

OR

b. We propose that order and bill should be raised in favour of our authorized distributor.

For that purpose, we have appointed M/S ..... having its office at  
..... (address with contact no and e mail address) as authorized Distributor  
who will receive order and payment in his name on our behalf.

c. The agreement between ourselves and the distributor/C&F/Liasoner& other documents  
as prescribed is attached in annexure III

5. In the event of being selected, supply will be made within the stipulated period  
excepting the condition which is beyond our control.

6. We understand that:

(a) Tender Selection Committee/ H&FW Dept can amend the scope & value of the contract bid  
under this project.

(b) Tender Selection Committee/ H&FW Dept reserves the right to reject any application  
without assigning any reason.

Date :-

Signature of applicant including title  
and capacity in which application is made.

Contact details -

Mobile:

E mail ID:

**Annexure II**

Authorization letter in favour of the applicant (other than Managing Director/ Proprietor) –  
from the competent authority.

FORMAT

(To be furnished in the Company’s official letter pad with full address and contact no, E mail  
Address etc)

(TO WHOM IT MAY CONCERN)

This is to certify that Mr./Mrs. ....(Name),  
an employee of this Organisation as ..... (Official  
Designation) is hereby authorized to submit tender online, Vide NIT  
No....., Dated..... on behalf of the Organisation.

Signature of the competent authority with Seal

.....

(Signature of the Authorized Person)

Signature of Mr./Mrs. ....

.....is hereby attested.

## **Annexure- III**

- a. Copy of agreement between the Manufacturer and the Direct Importer/Distributor in Annexure -III

## ANNEXURE-IV

### Draft Affidavit Proforma

I, Sri/Smt. ....  
The Managing Director/Proprietor (etc.) of the Firm.  
..... (Name of the firm)  
At (address).....  
P.O. ....  
P.S.....Dist.....  
do hereby solemnly affirm and declare as follows:

- a. That I am not under conviction of any offence making myself liable to be disqualified to supply of Surgical Equipments/Instruments etc. to any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States.
- b. My Firm has not been blacklisted at present as a whole or for any item/ items as quoted in this tender by any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States in India.
- c. That no case is pending against me or against my Firm in any criminal court of law in connection with the supply of Surgical/hospital equipment/Instruments to the Govt. or Govt. undertaking Organization / Institution in the State of West Bengal or other State or States ( If any case is pending, pl state the details ).
- d. *That, I declare that the item or items quoted by me confirms the specification given in the NIT document or higher standard relating to the specification is provided.*
- e. The duly authenticated Technical Data Sheet is uploaded conforming to the prescribed standard.
- f. That, I also declare that if any information subsequently found incorrect or false will it automatically render the tender submitted by me cancelled and make me liable for penal/legal action as per law of the country.
- g. That I do further affirm that the statements made by me in this tender are true to the best of my knowledge and belief and all the documents attached are genuine & correct.

Deponent

## Specification of Thermal Cycler

### Machine Specifications

#### Thermal Cycler

- The system should be a 96 well Thermal Cycler with 4-6 separate Peltier blocks to provide independent temperature zones to run – six different assays with varying temperatures at the same time.
- Each block to accommodate 16 wells and having the ability to set up PCR with a specific temperature differential of up to 4 to 5 degree centigrade between blocks.
- Run up to 6 separate temperatures in the same plate with user defined time to determine the optimal annealing temperatures.
- Block Format: 0.2 mL alloy
- Temperature Range: 0 to 100 degree Cen
- Max Block Ramp Rate: 3 to 3.9 degree C/sec
- Max Sample Ramp Rate: 3 to 3.35 degree C/sec
- The system should have fast run mode.
- The system should support PCR volumes ranging from 10 to 80  $\mu$ l
- Choice of saving up to 600 to 1000 protocols to the instrument or unlimited to a

#### USB memory

- Should provide 5 years warranty.
- Should have at least 200 installation in eastern India (installation list needed)
- 6 to 6.5 inch VGA 32k color with touch screen.
- Suitable 1KVA Voltage stabilizer
- Should have Gel viewing transillumination facility
- Should have Kolkata based service center, engineer and application scientists name, mail id and contact no. must be provided.

*Sumi Mukhopadhyay*  
**Dr. Sumi Mukhopadhyay**  
Principal Investigator  
WBHESTBT Funded Project  
BT(Estt)VRD-65/2017  
Department of Laboratory Medicine  
School of Tropical Medicine, Kolkata

*Sudam Dha*  
Head of Department  
DEPARTMENT OF LABORATORY MEDICINE  
SCHOOL OF TROPICAL MEDICINE  
Kolkata-700 073

*Subhasish Kamal Guha*  
Prof. Subhasish Kamal Guha  
Medical Superintendent Cumi Vice Principal  
Calcutta School of Tropical Medicine  
Kolkata 700073

### **Specification of Automated Microplate ELISA Reader**

**System type** Open System

**Plate types** 96 well plates

**Wells Type** Flat,U and V Wells

**Operating Modes** Absorbance

Quantitative/Qualitative/Semi-Quantitative/Kinetic Mode

**Measurement Modes** Continuous / Step

**Shaking Modes** Three Linear Speeds - Low, Medium and Fast

**Wavelength Selection** Monochromatic, Bi-Chromatic, Multi-Chromatic

**Calculation Modes** -Non-linear Standard/-Cut-off/-Index Formula/-Column Subtraction/-Linear Regression/-Point to Point/-Cubic Spline/-Linear - Log

**Blank Options** Blank, Control, Assay Validation equations Against Air / Water, Well,Plate, Column, Column Mean, Row, Row Mean.

**Number of programmable** Up to 10 standards

**standards/calibrators** Storage/ display/ printing of multi standard curves and cut-off equations for all parameters.

**Test Programs** 100 totally "open" Test Programs

**Photometer** - Optical system

8 measurement channels

- Standard Four filters -basic model - 405 nm, 450 nm, 492 nm,630 nm

6 filter model -578 nm & 690 nm.

- Light Source: 13.8V/50W Quartz

Halogen Lamp. - Photometric Resolution : 0.001OD

- Wavelength Range : 400 to 800 nm

- Measurement Range : 400to 800 nm (0 to 3.5 OD)

- Accuracy : 0.0 ~ 2.0 OD/492 nm: better than  $\pm 3\%$   $\pm 0.06$  OD 2.0 ~ 3.0 OD/492 nm: better than  $\pm 3\%$   $\pm 0.09$  OD

- Linearity : 400 to 8000 nm

**Measurement Time** NORMAL: 16 Seconds single wavelength

SPEED: 8 Seconds single wavelength

**Display** High resolution Graphics

LCD 320x240 pixels

**Keyboard** Rugged waterproof & membrane panel

**PC Communication** Serial RS232 or USB 2.0

**Built-in Thermal Printer** High resolution, 384 dots per line, thermal Type with full graphics facility, and option for connecting External Parallel Printer

**Computer interfacing Software** Windows Based Software EiiLims with data management

**Reports on internal and Alphanumeric patient ID**

**External printers** based linear and matrix reports with OD, Conc ,Cut off interpretation etc.

Calibration graphs printed. Report generation for last (480) Sample's is viewed /printed /stored. Lab name

**Online Help** At each step on-line help in each menu. Beeps and online instructions on erroneous entry. Special HELP key on keypad.

**Operating Temperature** 20 - 40 Degree Celsius

**Storage Temperature** 10 to +50 Degree Celsius

**Humidity** Max. 80% RH, non-condensing.

**Power Supply** 18V DC using External Auto ranging

SMPS adapter 115/230VAC  $\pm 10\%$ , 50/60Hz., Max: 100 Watt.

**Dimension** 502 X 369 X 216mm

**Weight** 7Kg

*Anindita Debnath*

**DR. ANINDITA DEBNATH**  
M SC (CU) PH.D (JU)  
WBGS OFFICER-GR. A (TEACHING CADRE)  
CALCUTTA SCHOOL OF TROPICAL MEDICINE, KOL-73

*Subhasish Guha*

**Head of Department**  
**DEPARTMENT OF LABORATORY MEDICINE**  
**SCHOOL OF TROPICAL MEDICINE**  
Kolkata-700 073

*Subhasish Guha*

**Prof. Subhasish Kamal Guha**  
Medical Superintendent Cum Vice Principal  
Calcutta School of Tropical Medicine  
Kolkata 700073



**ULTRA LOW FREEZER (-86°C)**

**Technical Specifications:-**

Gross volume: 74 litres

Temp. range: -60°C to -86°C

Refrigerant: Nature R

Inner lids: 1

Power consumption 24/h: 5,1 kWh

Voltage: 220V-240V 50/60Hz

Compressor type: Single stage

Power consumption 24/h 6,55 kWh

Voltage 220V-240V, Frequency 50/60 Hz

**Features:-**

Freezer for daily use in laboratories, hospitals, scientific research etc..

Low power consumption, supreme stability, reliability, and long-term durability.

Easy installation – the freezer has a small outer dimension and can go through all standard doors.

This combined with low weight makes it very easy to install and move around.

No maintenance is required besides defrosting and vacuum cleaning the compressor compartment.

Service and repair – no regular service is required.

In case of a failure, repair can be performed on-site by any trained freezer service engineer.

**Outer Dimensions:-**

Height: 895 mm, Width: 550 mm

Depth: 645 mm, Gross weight: 57 kg

Net weight: 53 kg

*Anindita Debnath*

**DR. ANINDITA DEBNATH**  
M SC (CU), PH D (JU)  
WBGS OFFICER-GRA A (TEACHING CADRE)  
CALCUTTA SCHOOL OF TROPICAL MEDICINE, KOL-73

*Subhasish Kamal Guha*  
Head of Department  
DEPARTMENT OF LABORATORY MEDICINE  
SCHOOL OF TROPICAL MEDICINE  
Kolkata-700 073

*Subhasish Kamal Guha*  
Prof. Subhasish Kamal Guha  
Medical Superintendent Cum Vice Principal  
Calcutta School of Tropical Medicine  
Kolkata - 700073