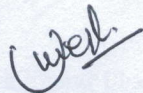
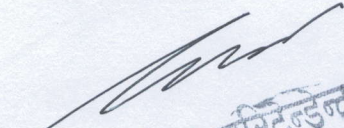


### Technical Specification of Bed Side Patient Monitor

| Purchaser's Specifications |  | Bidder's Compliance Sheet |                   |         |
|----------------------------|--|---------------------------|-------------------|---------|
| Bed Side Patient Monitor   |  | Yes /No                   | Ref Docs Page No. | Remarks |
| Manufacturer               |  |                           |                   |         |
| Brand                      |  |                           |                   |         |
| Type / Model               |  |                           |                   |         |
| Country of origin          |  |                           |                   |         |
| 1                          | <b>Description of Function</b>   |                           |                   |         |
| 1.1                        | A bedside multi function patient monitor to monitor physiological parameters of all patient categories, at bedside, NICU,ICU OT or during transportation applicable for Adult, Pediatric and neonatal application. |                           |                   |         |
| 2                          | <b>Operational Requirements</b>  |                           |                   |         |
| 2.1                        | It shall operate on AC power supply as well as built-in battery.   |                           |                   |         |
|                            | <b>System Configuration</b>  |                           |                   |         |
| 3.1                        | Patient monitor 5 parameter with ECG, Resp., SpO2, NIBP and Temp.  |                           |                   |         |
| 3.2                        | All accessories, consumables, wall mounts and etc. required for monitoring of physiological parameters specified herein.   |                           |                   |         |
| 4                          | <b>Technical Specifications</b>  |                           |                   |         |
| 4.1                        | High resolution at least 10" display with LCD/LED backlight.   |                           |                   |         |
| 4.2                        | Monitor must be able to monitor ECG, Respiration, SpO2, NIBP & Temperature.  | #                         |                   |         |
| 4.3                        | Display of up to 5 physiological parameters without the need for external devices  |                           |                   |         |
| 4.4                        | Display waveform: ECG, SpO2, pulse wave, respiration.  |                           |                   |         |
| 4.5                        | Numeric data display: heart rate / pulse rate, respiration rate, NIBP (Systolic, Diastolic, Mean), SpO2 and current time of NIBP measurement   |                           |                   |         |
| 4.6                        | Protection against defibrillator discharge   |                           |                   |         |
| 4.7                        | Adult, Pediatric and neonatal measurement mode   |                           |                   |         |
| 4.8                        | simultaneously display of minimum at least 7 waveforms   |                           |                   |         |
| 4.9                        | Must have Alarm limit display on main screen with audible alarms   |                           |                   |         |
| 4.10                       | 72-hour or more ECG waveform data storage and recall   |                           |                   |         |
| 4.11                       | At least 1000 groups event, ARR and SpO2, NIBP measurements storage.   |                           |                   |         |
| 4.12                       | Monitor must have Lithium ion Battery More than 2 hour battery Backup.   |                           |                   |         |
| 4.13                       | Should have network capability to connect central monitoring system.   |                           |                   |         |
| 4.14                       | Should have OxyCRG for monitoring newborns.  |                           |                   |         |
| 4.15                       | Customized Display of parameters.  |                           |                   |         |
| 4.16                       | Alarm shall have at least 3 levels: Low,Medium, high   |                           |                   |         |
| 4.17                       | Should have facility of calculation of drug concentration  |                           |                   |         |
| 4.18                       | Alarm notification shall be given by Audible and Visual signal   |                           |                   |         |
| 4.19                       | <b>ECG:</b>  |                           |                   |         |
|                            | Should be able to monitor ECG through 5-Lead patient cable   |                           |                   |         |
|                            | Should be able to display Lead I, II, III, aVR, aVL, aVF, V  |                           |                   |         |
|                            | Should be able to monitor heart rate from 15-350 bpm   |                           |                   |         |
|                            | HR measuring accuracy: $\pm 1\%$ or $\pm 2\text{bpm}$  |                           |                   |         |
| 4.20                       | <b>SPO2</b>  |                           |                   |         |
|                            | Should use digital technology for monitoring SPO2  |                           |                   |         |

  
**Er. Umesh Kumar Chaudhary**



  
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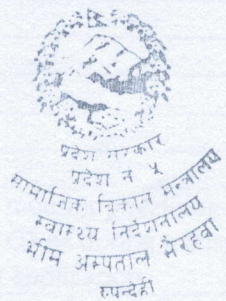
|      |   |  |  |  |
|------|---|--|--|--|
|      | Should have measuring range form 0-100 %  |  |  |  |
|      | SpO2 measuring accuracy: 2% for range from 70% to 100%  |  |  |  |
| 4.21 | <b>NIBP:</b>  |  |  |  |
|      | Should have oscillometric method for measurement of NIBP  |  |  |  |
|      | Mode: Manual, Auto, Continual   |  |  |  |
|      | Measuring time: <30 seconds (typical adult cuff)  |  |  |  |
| 4.22 | <b>Respiration:</b>   |  |  |  |
|      | Method: impedance between R-F (RA-LL)   |  |  |  |
|      | Respiration Rate: 0-150 rpm   |  |  |  |
|      | RR measuring accuracy: $\pm 5\%$ or $\pm 2\text{rpm}$   |  |  |  |
| 4.23 | <b>Temperature:</b>   |  |  |  |
|      | Channel-02  |  |  |  |
|      | Measuring range: 0~50 degree Celsius  |  |  |  |
|      | Measuring accuracy: $\pm 0.2^\circ\text{C}$ for range from $25.0^\circ\text{C}$ ~ $45.0^\circ\text{C}$  |  |  |  |
| 5    | <b>Accessories, spares and consumables</b>  |  |  |  |
| 5.1  | 5 Lead ECG cable for adult and 3 lead cable for neonate, 1 set each   |  |  |  |
| 5.2  | SpO2 connector and probe adult & neonate, 1 set each  |  |  |  |
| 5.3  | NIBP connection hose and cuff adult & neonate, 1 set each   |  |  |  |
| 5.4  | Skin Temperature probe, 1 set   |  |  |  |
| 5.5  | 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    | <b>Operating Environment</b>  |  |  |  |
| 6.1  | The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.   |  |  |  |
| 6.2  | Power supply: 100 – 240VAC, 50-60Hz fitted with appropriate plug. The power cable must be at least 3m in length.  |  |  |  |
| 7    | <b>Standards and Safety Requirements</b>  |  |  |  |
| 7.1  | Must submit ISO 13485 or better for medical devices   |  |  |  |
| 7.2  | Must submit CE (93/42 EEC Directives)   |  |  |  |
| 7.3  | Must submit USFDA approved product certificate  |  |  |  |
| 8    | <b>User Training</b>  |  |  |  |
| 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    | <b>Warranty</b>   |  |  |  |
| 9.1  | Comprehensive warranty for 2 years after acceptance.  |  |  |  |
| 9.2  | During the warranty period supplier must ensure corrective/breakdown maintenance whenever required  |  |  |  |
| 10   | <b>Installation and Commissioning</b>   |  |  |  |
| 10.1 | The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail  |  |  |  |



|  |   |  |  |  |
|--|---|--|--|--|
| <b>11</b>  | <b>Documentation</b>                                    |  |  |  |
| 11.1   | User (Operating) manual in English                      |  |  |  |
| 11.2   | Service (Technical / Maintenance) manual in English     |  |  |  |
| 11.3   | 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 |   |  |  |  |

*Umesh*

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