

Annexure -A

Item No.1:- Specifications for Video Assisted Thoracoscope complete set with accessories and Voltage Stabilizer.

Specification -VATS set with 3D Camera

ENDOSCOPIC-3D CAMERA SYSTEM:

The 3D Endoscopic Camera system should offer excellent imaging with extraordinary depth perception .

The system should consist of :

3D- Camera Head :

- Integrated video thoracoscope, 10 mm, 0° direction of view, 70° angle of view
- Integrated video thoracoscope, 10 mm, 30° direction of view, 70° angle of view
- Two distal image sensors, optimized for stereoscopic endoscopy
- Precise control of the two image sensors via cutting-edge electronics in the endoscope handle
- Precise alignment of the two sensors
- Slender and light design – weight should not be more than 400 gm for optimal ergonomics, integrated in a fine titanium case.
- Sterilization options: Autoclavable, Sterrad® 100S, NX, 100NX; Steris® system, V-Pro, and EtO
- Safety class CF defib.
- Extremely easy operation, very short setup time before surgery

3D camera control unit (CCU) -

The camera control system should have :

- DVI-D output for transmitting the 3D signal in 1080p format at 50/60 Hz to a 3D monitor
- HD-SDI and S-Video output for simultaneous signal transmission to standard 2D monitors
- Easy switching between 2D and 3D modes
- Integrated USB interface for saving captured video or still images in 2D
- Overall system rated safety class CF defib

Technical Specifications :

Camera System :

– USB port - For Captuting direct 2D still & videos .

AGC : Microprocessor controlled.

Video output – FULL HD signal at DVI-D socket



- HD-SDI signal at BNC socket
- RGBS signal at DSUB socket
- S-Video at 4-pin mini-DIN socket (2 x)
- FBAS signal at BNC socket

Weight should not be more than 3.5 kg

Input Keyboard for title generator, 5-pin DIN socket

Operating voltage 100 – 240 VAC, 50/60 Hz

Design Meets IEC 601-1, 601-2-18, CSA 22.2 no. 601, UL 2601-1 and CE according to MDD, protection class 1/CF defibrillation-safe

3D Monitor :

- Medical Grade FULL HD monitors 32" – The system should have facility to display in 3D and 2D modes.
- Various signal inputs: DVI-D for 3D signal, HD-SDI for 2D signal in HD, S-Video for 2D signal in standard resolution
- Should be supplied with 20 pieces of Light, passive circularly polarized 3D glasses.

Technical Specifications :

3D Monitor :

LCD Panel 32 inch (16:9 aspect ratio)

Screen Dimensions- 776mm (W) × 443 mm (H) × 114 mm (Diagonal)

Number of pixels 2,073,600 pixels (1,920 × 1,080)

Viewing angle- Horizontal: 178 degrees, Vertical: 178 degrees (3D : TBD)

Contrast Contrast 1000:1

Luminance -340cd/m²

Reaction Time – 6-8ms

Display mode

Dual display mode

Triple display mode

PIP and POP mode

Mirror image mode

XENON LIGHT SOURCE AND LIGHT CABLE

Specifications :

High intensity Xenon light source.

Special features :

- High light intensity with 300watt Xenon Lamp.

- High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour redention.
- Monitoring of lamp function.

Technical specifications :

Lamp type	Xenon lamp, 300 watt
Colour temperature	approx. 6000 K
Light outlets	1
Light intensity adjustment	continuously adjustable from 0 to 100%
Certified to	IEC 601- 1, CE label according to MDD, protection class 1/BF

FIBER OPTIC LIGHT CABLE

Specifications :

Size 3.5 mm, length 250 cm

Equipment cart

Equipment Cart, wide, high, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, central beam with integrated electrical subdistributors with 12 sockets, grounding plugs, Dimensions in mm (w x h x d): Equipment cart: 830 x 1474 x 730, Shelf: 630 x 25 x 510, Caster diameter: 150 mm consisting of: Base Module, equipment cart wide Cover, equipment cart wide Beam Package, equipment cart high 3x Shelf, wide Drawer Unit with Lock, wide 2x Equipment Rail, long Camera Holder.

Recording system

<p>FULL HD IMAGE/VIDEO RECORDING SYSTEM - QTY 1</p> <p>Documentation system should have following specifications,</p> <ul style="list-style-type: none"> - User friendly work flow in built in Medical grade unit - Sleek and compact design - Captures still images, video sequences - Record still images and video in FULL HD at Resolution of 1920x1080P - Controllable via membrane buttons on front panel, camera head buttons, footswitch mouse and keyboard - Enters patient data in combination of keyboard - Can be installed on Cart with single screen (no additional screen required) - Supports network storage on file servers

- Network Protocol: TCP IP/ SMB
- USB support for storage on USB drives
- Customizable print-outs for the documented information
- Quick print function for fast print of images
- HIPAA compliant
- Medical grade unit CE certified, ICE 60601-1
- Microprocessor: RIMM (AMD) Processor at 500 Mhz.
- USB Silicon Keyboard with Touchpad
- Video signal inputs: DVI-I Dual Link, HD-SDI, Composite, S-Video, RGB, YPbPr
- Video Out: DVI-I Dual link
- Video output resolution: 1920x1080, 1280x1024, 1280x720, 1024x768, 800x600, 640x480
- Audio Input: Standard 3.5 mm stereo phone jacks
- Internal hard drive: 320 GB
- USB ports: USB 2.0 (1 front panel, 2 rear panel)
- Network: RJ45 / connection as network drive (SMB)
- Recording formats: Videos: H.264mp4
Images: JPG, TIFF, BMP
- Patient data: Saved as .txt file and / or in EXIF format
- Power supply: 100/240 VAC, 50/60 Hz

Signal Management – Qty 1

A compact solution enables the easy and efficient distribution and individual routing of several high-resolution video signals, even without an integrated OR.

The HD Video Router shall be a Medical-Grade video routing system that accepts up to 4 DVI-D inputs and 4 DVI-D outputs. This shall be utilized to connect various imaging devices such as the Endoscopic Camera, Surgical Camera, Room Camera, Surgical Displays, etc...

Routing the desired input to the desired output shall be possible via 4 membrane buttons on front panel,

In addition, this system shall be able to also operate as a distributor in that any of the selected inputs is simultaneously broadcasted over the 4 outputs at the push of a button.

System should have following features,

- Two operating modes – switcher or router.
- Convenient use via four membrane keys. LEDs on the front panel display the operating mode in use

• **Easy switching or routing of DVI-D sources in the OR or during live transmission. The simultaneous connection of a documentation system enables the recording of up to four sources**

- Convenient distribution of DVI-D sources in the OR to various monitors or documentation systems

Management system can be controlled via a front-button operation, it should have,

- Video inputs: 4 x DVI-D

- Video outputs: 4 x DVI-D

- Operation: 4 membrane keys with LED display

- Max. video resolution: 1920 × 1080p; 50/60 Hz

- External dimensions (w × h × d): 305 × 83.7 × 249 mm

VATS instruments -

Rod Lens Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, autoclavable. fiber optic light transmission incorporated.-Qty 1

Rod lens Telescope 30°, enlarged view, diameter 5 mm, length 29 cm, autoclavable. -Qty 1

Telescope, 10 mm, length 32 cm, variable direction of view from 0° - 120°, twisting controller to select the desired view of direction, fiber optic light transmission incorporated -Qty 1

Straight Forward Tele- scope 0°, enlarged view, with angled eyepiece, diameter 10 mm, length 27 cm. Fiber optic light transmission incorporated, with 6 mm instrument channel, autoclavable- qty1

Trocar, size 11 mm, consisting of: Trocar only with blunt tip, Cannula without valve, with insufflation stop- cock, length 10.5 cm Automatic valve – qty1

Pneumatic holding arm, set, for point setter consisting of: Point setter Arm OR Table Adaptor LOCK Adaptor, clamping jaws Clamping Jaw, large Clamping Jaw, small Clamping Jaw, for fiberscopes Pressure Regulator, 7 bar 0 Single-use cover with elastic tip, 42 x 164 cm. qty1

Straight Forward Telescope 0°, working distance 25 - 75 cm, diameter 10 mm, length 11 cm, autoclavable, fiber optic light transmission incorporated, color code: green qty1

Suction Tube, insulated, with trumpet valve, for unipolar coagulation, size 5 mm- qty1

Dissecting and Biopsy Forceps, rotating, size 5 mm, length 43 cm, with connector pin for unipolar coagulation, single action jaws, with LUER lock adaptor for cleaning, consisting of: Plastic Handle, without ratchet Outer Tube with insert, insulated -qty1



Coagulating Electrode, insulated, for unipolar coagulation, size 5 mm –qty1

Powder Blower with bulb, size 5 mm, working length 42 cm, consisting of: Sheath for Powder Blower, Rubber bulb, Tube and Bottle qty1

Trocar, size 11 mm, autoclavable consisting of: Trocar, with blunt tip, Trocar Cannula, flexible, without valve, length 8.5 cm-Qty 4

Plastic cannula autoclavable for use with flexible trocar size 11 mm- package of 5-Qty 4

Trocar, size 6 mm, autoclavable consisting of: Trocar, with blunt tip, Trocar Cannula, flexible, without valve, length 8.5 cm-Qty 4

Plastic cannula autoclavable for use with flexible trocar size 6 mm- package of 5-Qty 4

Trocar, size 6 mm, consisting of: Trocar with blunt tip, Cannula with thread, length 4 cm –Qty 4

Trocar, size 6 mm, consisting of: Trocar, only with blunt tip, Cannula with thread, length 6 cm- Qty 4

Trocar, size 11 mm, consisting of: Trocar only, with blunt tip, Cannula with thread, length 6 cm-Qty 4

Trocar, size 6 mm consisting of: Trocar with blunt tip, Cannula without thread, length 6.5 cm, with insufflation stopcock, Silicon Leaflet Valve, size 6 mm-Qty 4

Trocar, size 11 mm consisting of: Trocar with blunt tip, Cannula without thread, length 6.5 cm, with insufflation stopcock, Silicon Leaflet Valve, size 11 mm-Qty 4

Trocar, size 13 mm, consisting of: Trocar with blunt tip, Cannula with thread, length 4 cm-Qty 4

Trocar, size 13 mm, consisting of: Trocar with blunt tip. Cannula with thread, length 6 cm. –Qty 4

Parenchymal Forceps, atraumatic, straight jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, with ratchet, Outer Tube with Working Insert-Qty 2

Parenchymal Forceps, atraumatic, double curved jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, with ratchet, Outer Tube with Working Insert-Qty 2

Lung Forceps, atraumatic, fenestrated, curved jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, Outer Tube with Working Insert-Qty 2

Dissecting and Grasping Forceps, curved jaws, double action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, Outer Tube with Working Insert-Qty 1

Lung Nodule Forceps, atraumatic, fenestrated, curved jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, Outer Tube with Working Insert-Qty 1



Grasping Forceps, Cobra-Jaws, 1 x 2 teeth, straight jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions Outer Tube with Working Insert-Qty 1

Grasping Forceps, straight jaws, single action jaws, size 5 mm, length 28 cm, consisting of: Metal Handle with 4 locking positions, Outer Tube with Working Insert-Qty 1
Parenchymal Forceps, atraumatic, curved jaws, single action jaws, size 5 mm, length 28 cm, for use with Linear Stapler-Qty 2

Dissecting Forceps, insulated, curved jaws, double action jaws, size 5 mm, length 28 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Handle with 4 locking positions, Insulated Outer Tube with Working Insert-Qty 1

Scissors, insulated, straight jaws, curved scissor-blades, double action jaws, size 5 mm, length 28 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Handle with 4 locking positions, Insulated Outer Tube with Working Insert-Qty 2

Scissors, insulated, distally angled outer sheath, curved scissor-blades, scissor blades open horizontally to angulation, double action jaws, size 5 mm, length 28 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Handle with 4 locking positions, Insulated Outer Tube with Working Insert-Qty 2

Scissors, insulated, distally angled outer sheath, straight scissor-blades, scissor blades open parallelly to angulation, single action jaws, size 5 mm, length 28 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Y-Handle with 4 locking positions, Insulated Outer Tube with Working Insert-Qty 2

Biopsy Forceps, insulated, distally angled outer sheath, single action jaws, size 5 mm, length 28 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Y-Handle with 4 locking positions, Insulated Outer Tube with Working Insert-Qty 1

Biopsy Forceps, insulated, straight, single action jaws, size 5 mm, length 28-35 cm, with connector pin for unipolar coagulation, consisting of: Insulated Metal Handle, Insulated Outer Tube with Working Insert-Qty 1

Surgical Sponge Holder, for atraumatic dissection of tissue layers, size 10 mm, length 30 cm, consisting of: Handle, Outer Sheath, insulated Sponge Holder Insert-Qty 1

Powder Blower with bulb, size 5 mm, working length 30 cm, consisting of: Sheath for Powder Blower, Rubber bulb, Tube and Bottle-Qty 1

Suction-Coagulation Cannula, with connector pin for unipolar coagulation with handle, size 5 mm, length 28-35 cm-Qty 1

dissecting forceps, , rotating, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, double action jaws, curved jaws, jaws open horizontally to angulation, size 5 mm, length 20 cm, color code: light blue consisting of: Outer Sheath with Forceps Insert qty-1

Dissecting Forceps, model, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, double action jaws, curved, jaws open horizontally to angulation, size 5 mm, length 28 cm, color code: light blue, consisting of: P Plastic Handle, with 4 ratchet positions Forceps Insert with Outer Sheath qty-1



Scissors, model, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, single action jaws, straight scissor blades, scissor blades open vertically to angulation, size 5 mm, length 28 cm, color code: light blue consisting of: Plastic Handle, with 4 ratchet positions Scissors Insert with Outer Sheath qty-1

METZENBAUM Scissors, Model, rotating, dismantling, with connector pin for bipolar coagulation, curved jaws, more slender scissor blades, double-action jaws, size 5 mm, length 20 cm, color code: light blue consisting of: Plastic Handle Metal Outer Sheath, insulated MW Scissors Insert qty-1.

Suction-Coagulation Cannula, with connector pin for bipolar coagulation, distally angled sheath, for use with handle, size 5 mm, length 28 cm-Qty 1

Suction and Irrigation Cannula, with lateral holes, distally angled sheath, for use with handle, size 5 mm, length 28 cm-Qty 1

Dissecting Electrode, L-shaped, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm-Qty 1

Palpation Probe and Knot Pusher, distally angled sheath, size 5 mm, length 28 cm-Qty 1

Needle driver Parrat-Jaw straight handle with ratchet length 33 cm-Qty 1

Assistant Needle driver Flamingo Jaw straight handle length 33 cm-Qty 1

Rib Spreader, self-retaining, blade depth 40 mm, blade width 30 mm qty 1

Rib Spreader, self-retaining, blade depth 60 mm, blade width 30 mm qty 1

Dissecting Forceps, self- retaining, with ratchet, S-shaped, length 330 mm qty 1

Dissecting Forceps, self- retaining, with ratchet, S-shaped, length 280 mm qty 1

Grasping Forceps, with ratchet, fenestrated, S-shaped, medial joint, length 330 mm qty 1

Dissecting Scissors, S-shaped, medial joint, length 330 mm qty 2

Dissecting Scissors, S-shaped, medial joint, length 280 mm qty 2

Dissecting Scissors, S-shaped, distal joint, length 330 mm QTY 1

Dissecting Scissors, S-shaped, distal end angled, medial joint, length 260 mm QTY 1

Dissecting Forceps, atraumatic, bayonet-shaped, insulated, working length 220 mm QTY 1

Dissecting Forceps, with multiple teeth, bayonet-shaped, insulated, working length QTY 1

Suction Tube, with trumpet valve, curved, working length 250 mm QTY 1

Unipolar Coagulating Electrode, knife tip, malleable, working length 400 mm QTY 1

Unipolar Coagulating Electrode, ball tip, malleable, working length 400 mm QTY 1



Unipolar Coagulating Electrode, hook, malleable, working length 400 mm QTY 1
Unipolar Coagulating Electrode, spatula, malleable, working length 400 mm QTY 1
Needle Holder, S-shaped, with ratchet, length 270 mm QTY 1
Sling Passer, working length 250 mm QTY 1
Retractor, with 3 teeth, S-shaped length 270 mm QTY 2
Retractor, with 3 teeth, distal end curved, length 270 mm QTY 1
Lung Spatula, S-shaped, working length 270 mm QTY 1
Sponge and Dissecting Forceps, length 20 cm- QTY 1
Sponge and Dissecting Forceps, length 30 cm - QTY 1
Sponge and Dissecting Forceps, with ratchet, length 20 cm- QTY 1
Biopsy Forceps, with suction channel, length 20 cm- QTY 1
Biopsy Forceps, with suction channel, length 30 cm- QTY 1
Biopsy Forceps, with oval jaws, size 8 mm x 16 mm, length 20 cm-QTY 1
Biopsy Forceps, with oval jaws, size 8 x 16 mm, length 30 cm- QTY 1
Scissors, rotating, with connector pin for unipolar coagulation, size 5 mm, length 25 cm, curved, double action jaws, consisting of: Plastic Handle, without ratchet Outer Tube, insulated and Scissors Insert – QTY 1
CLICKLINE Scissors Insert with Outer Sheath, curved, double action jaws, spoon-shaped jaws, length of blades 17 mm, size 5 mm, length 36 cm, sterile, for single use, package of 10 qty-1
Coagulation and Suction Cannula, Ø 5 mm, curved, insulated, with connector pin for unipolar coagulation, length 20 cm- QTY 1
Coagulation and Suction Cannula, Ø 5 mm, curved, insulated, with connector pin for unipolar coagulation, length 30 cm- QTY 1

Item No.2:- Specifications for Sternum Saw

- a) Driving Unit
 - i) 220Volts/ 5 Amp A.C. Supply
 - ii) Complete enclosed.
 - iii) Foot Control for on/off and speed.
 - iv) Castors for mobility.
 - v) Can be dismantled & Packed into a suitcase.
 - vi) Flexible shafts (cable) & stand for above.
 - vii) Foot control.



b) Flexible Shaft

- i) Length 1.5 mtrs.
- ii) Weight approx. 1000 gms.
- iii) Autoclavable.
- iv) Push-Pull type ends.

c) Sternum saw handpiece

- i) Reciprocating blade type
- ii) Weight 850 gms. Approx.
- iii) Ideal for sternotomy.
- iv) Reciprocations 13,000/CPM
- v) Autoclavable.

d) Sternum saw handpiece (Ped)

- i) Reciprocating Blade type
- ii) Weight 850 gms. Approx.
- iii) Ideal for Sternotomy (ped).
- iv) Pediatric type blades available.
- v) Smaller anchors provided.
- vi) Reciprocations 13,000/ CPM
- vii) Autoclavable.
- viii) Tool kit & special container.
- e) Redo saw handpiece

- i) Oscillating Blade type.
- ii) Weigh 750 gms. Approx.
- iii) Ideal for resternotomy.
- iv) Sector type blades provided.
- v) Oscillations 13,000/ CPM
- vi) Autoclavable.



3) Hand Held video Laryngoscope:-

- i. LED display with 260 degree display.
- ii. Display screen size of minimum 6 x 6 cm.
- iii. Light weight & portable.
- iv. Channeled & without channeled blade option.
- v. Video output port.
- vi. Computerized power management system.
- vii. Camera with anti-fog lens.
- viii. Camera resolution of 400x 440 VGA or more.
- ix. Battery back-up of minimum 90 minutes.
- x. Battery status indicator on optics indicating the need to recharge
- xi. Docking station complimentary with each optics for recharging the optics when needed.
- xii. Guided disposable blades for smooth ETT insertion.



(Prof. S. Rita Devi)
Director,
Regional Institute of Medical Sciences,
Imphal