

1. Bid Details

Your corrigendum has been published successfully.

Bid Number: GEM/2025/B/6872966

Bid Status: Active

Quantity: 81

Bid Validity (From End Date): 150 (Days)

Competent Authority Document: View

Bid Start Date / Time: 14-11-2025 11:35:55

Bid End Date / Time: 28-11-2025 14:00:00

Bid Opening Date / Time: 28-11-2025 14:30:00

Consignees / Reporting Officer / Delivery Location(S)

EMD: Required Track EMD

Buyer Details

Name: Sagar Udaramji Shende

Ministry: Ministry Of Defence

Organisation: Mazagon Dock Shipbuilders Limited

Address: Sagar Udaramji
Shende,Sushende@Mazdock.Com,MAZAGON DOCK
SHIPBUILDERS LIMITED, DOCKYARD ROAD, MUMBAI -
400010,Mumbai,MAHARASHTRA,400010,India,022-23763320-

Department: Department Of Defence Production

Office: Mumbai

Corrigendum Details

Modified On: 2025-11-21 11:58:03

[Download](#)

Hash Value (Algorithm - SHA256):

90728cf5f754f05e249c426ad771abea4cfb0b32e74364ca385ba8451d076fea

Modified On: 2025-11-21 11:46:46

Bid extended to 2025-11-28 14:00:00

ADDITIONAL TERMS AND CONDITIONS (ATC)

1. **This tender is single nominated Tender. Bidder who have received intimation from MDL (P17A-Commercial) for this tender is only allowed to submit their bid.**

2. **DESCRIPTION & SCOPE OF WORK:**

- (a) **MAIN EQUIPMENT/ITEM/SYSTEM:** PROCUREMENT AND INSTALLATION OF
TELEMEDICINE ONBOARD FOR Y-12651,Y-12652,Y-12653 & Y-12654 OF P17A

(b) **ON BOARD SPARES (OBS):**

- (i) Recommended OBS & Tools list, along with quantity for each ship sets to be proposed by the bidder in Part-I bid. The list of OBS shall be in ILMS-V2 (Integrated Logistics Management System) format, (INCAT databank compatible format) shall be uploaded along with the Part-I bid. This list should be in Excel format with itemized cost breakup in percentage of the total quoted price of OBS per ship. Please note that the OBS prices are not to be indicated in Part-I bid. OBS will be ordered along with the main equipment. The OBS shall be well packed in specific size of SPTA box and stores on-board the ship without any defect or deficiencies. The Box containing OBS shall be in "RED" color and a list of items shall be appended inside and outside of the box.
- (ii) Separate OBS sets are to be proposed for one year & two years' exploitation period as per TSP. It is mandatory to quote OBS against each line item for 1 year as well for 2 years of exploitation period. Please note that the OBS prices are not to be indicated in Part-I bid.
- (iii) For ranking the bids, only 1 year OBS cost will be considered along with bid. Decision to place Order for OBS for 2 years of exploitation period shall be taken by IN/MDL at a later date and its prices to be uploaded at Financial Document.
- (iv) **FINANCIAL DOCUMENT:** All bidders should upload the financial document for the prices of 2nd Year OBS as per following line items:

Item description	Rate (Rs.)
On Board Spares for two year for Y12651	
On Board Spares for two year for Y12652	
On Board Spares for two year for Y12653	
On Board Spares for two year for Y12654	

(c) **BASE & DEPOT (B&D) SPARES:**

- i. B&D spares for 5 years exploitation post waranttee period are to be estimated and same is to be supplied.
- ii. Bidder's recommended B&D spares list for all 4 ships of MDL and aalong with Comprehensive Part list (CPL)/Part Identification List (PIL) shall be uploaded in Part-I bid. These lists should be in excel format with itemized cost breakup in percentage of the total quoted price of B&D per set. It is mandatory for bidder to quote for B&D spares. Please note that the B&D spare prices are not to be indicated in part -I bid.
- iii. Validity of the B&D spares shall be 365 days from the tender closing date or 365 days from date of submission of B&D spares list in ILMS format along with final CPL/PIL in ILMS format by the bidder whichever is later.
- iv. For the purpose of ranking the bids, the B&D escalation rates will be loaded at the quoted rate.
- v. The list of B&D spares shall be in ILMS format (INCAT databank compatible format). Please note that prices are not to be mentioned in Part-I bid.
- vi. After ranging & scaling by Navy, order for finalized/approved B&D spares would be placed separately by MDL on behalf of Indian Navy.
- vii. MDL reserve the right to advance or postpone the delivery of B&D spares by 6 months. The advancement or postponement of the B&D spares delivery by 6 months shall be at no extra cost. The same shall be discussed in the price negotiation meeting prior to placement of order for B&D spares.
- viii. The B&D spares ordered by MDL shall be delivered to Material Organization, Naval Store(CWH), Visakhapatnam.

3. **Pricing:** Prices of all items/services listed in the price sheet format of the tender enquiry for delivery of the items at MDL Store.

4. **Prices:** Prices shall be quoted for service on all-inclusive basis as per terms and conditions of this tender as applicable for door delivery to MDL Stores. Quoted prices shall remain firm & fixed during currency of contract.

5. **Submission of Offer In Single Bid System:** Offer must be submitted in Single bid (Technical +Price Bid).

The bidder shall ensure following are essentially included in bid:

- (i) Bidders / Suppliers should enclose additional documents as applicable to this tender.
- (ii) GST % for all quoted line items, line item wise on separate sheet.
- (iii) Prices for each of listed items has to be uploaded strictly in prescribed format provided on GeM portal. Bids received other than this given format will be rejected
- (iv) Lists of B&D spares for 04 Ships of MDL in excel format (ILMS V2) as per tender.

6. **Pre-Qualification Criteria:** Not Applicable

7. **Earnest Money Deposit(EMD):** Not Applicable

8. **Delivery schedule:** Delivery Of Items Shall Be From 3 & 4 Months From The Date Of Placement Of Order For First And Last Two Ships Respectively and same is detailed below:

Yard No	Delivery Period
For Y-12651 (For all items & serices)	Within 90 Days from PO date
For Y-12652 (For all items & serices)	Within 90 Days from PO date
For Y-12653 (For all items & serices)	Within 120 Days from PO date
For Y-12654 (For all items & serices)	Within 120 Days from PO date

9. **Consignee:** Actual consignee and delivery details and address is to be considered as mentioned below:

(a) Material scheduled for delivery are to be delivered at MDL Store at Anik Chembur yard on Onboard.

Note:-In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter, and MDL stores.

i. Following document should be submitted along with material:

- PO copy & subsequent amendments issued to it, if any.
- Delivery Challans clearly indicating MDL Purchase Order No
- Packing List co-relating the items in the inspection report.
- Copy of Warranty Certificate etc.

ii. Unloading of the equipment/ items will be arranged by MDL. In case of delivery of Large/ Bulky/ Heavy consignments, supplier is required to give 2 to 4 day's advance intimation to MDL clearly indicating approx. dimensions and weight of consignments for arranging fork lift/crane for unloading.

(b) B & D spares to be delivered at following address:

The Material Superintendent
Controller of Warehousing,
Material Organisation, Kancharapalem
Visakhapatnam- 530008.

Note:-

i)In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter and stores.

ii) Consignee mentioned in GEM tender is only for regularization purpose however, above mentioned consignee details will be considered for all purposes.

iii) The consignment must be delivered by giving at least 15 days' advance notice to Material Superintendent, Visakhapatnam, under intimation to MDL clearly indicating weight, dimensions of the consignment etc.

iv) The following Documents should be sent along with the consignment of B&D Spares as applicable:

Copy of MDL Purchase Order & subsequent amendments issued to it, if any.

Copy of Invoice,
Inspection Release Note (IRN) issued by nominated inspection officer.
Delivery Challans clearly indicating MDL Purchase Order No,
Copy of Warranty Certificate, Preservation Certificate etc. as relevant

10. **Work Done Certificate (WDC) / Completion Certificate (WCC):**

- (a) Work Completion certificate (WCC) shall be issued on Satisfactory completion of respective work with inspection and acceptance reports. Agency responsible to issue WCC shall be Ship Manager not below the rank of the rank of Chief Manager or above only.
- (b) The WDC must clearly mention the mutually agreed completion schedule and actual work done schedule for start date & end date.
- (c) In case of delays, the duration along with numbers of delayed days shall be specified in respective WDCs to invoke LD clause and effect recoveries from sub contractor's invoice.

11. **Payment Mode & Terms:**

- (a) Advance payment is not applicable for this tender.
 - (i) **For Goods:** 95 % of Payment shall be made within 15 days after generation of CRAC OR receipt & acceptance of material/services whichever is early and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes, duties etc. as applicable. The following documents required for certification of payment:
 - a. Suppliers invoice.
 - b. PO copy with amendments if any
 - c. Proof of submission of PBG (Wherever applicable).
 - d. Copy of Warranty Certificate.
 - (ii) **For Services:** 95% Payment for the value of services will be activity basis and after certification from the MDL designated executive in the rank of CM and above. Payment of the value of the services as may be payable and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus taxes, duties etc as applicable shall be made within 15 days from the date of completion of services. The following documents required for certification of payment:
 - a. Suppliers invoice.
 - b. PO copy with amendments if any
 - c. Proof of submission of PBG (Wherever applicable).
 - d. Work Completion Certificate in the form of SAP Service Entry.
 - (iii) **For B & D Spares :** Payment of 80% of the value of the supplies and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes & duties shall be made within 15 days against generation of CRAC . . The said payment shall be made against submission of provisional receipt obtained from Material Organization, Visakhapatnam, four ink signed copies of invoices, inspection/ Test Certificate/release note from the nominated Inspection Agency, Delivery Challans/original "IN" signed Lorry Receipt duly bearing receipt stamp of Consignee &, warranty Certificate & Certificate for preservation as relevant.
Payment of the balance value of the supplies (i.e. 20%) shall be payable offline as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any, subject to the following:
 - (i) On receipt of ink signed copy of Stores Receipt Voucher (SRV) from Material Organization, Visakhapatnam.
 - (ii) Settlement and resolution of outstanding issues including those related to delivery and ILMS format if any.
 - (iii) Submission of PBG for an amount of 5% of order value, valid up to agreed Warranty period plus one-month claim period.
 - (iv) Balance payment will be made through Real Time Gross Settlement (RTGS) / National Electronic Fund Transfer (NEFT) only by MDL outside GeM portal to vendor on receipt of above mentioned documents.
- (iv) Payment of the balance of the value of the supplies may be payable and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any, on

submission & confirmation of PBG of equivalent amount valid up to warranty period plus two-month claim period

(b) **Part Payment:** Part Supply/Services, Part Payment is applicable.

Note: Invoices should be submitted at "Receipt Section" adjacent to the ARS Punching Section, South Yard MDL.

12. **PAYMENT MODE:** All the payments to indigenous bidders due shall be made through Real Time Gross Settlement (RTGS) / National Electronic Fund Transfer (NEFT) by MDL.
13. **LIQUIDATED DAMAGES (LD):** LD clause shall be applicable as per GeM terms & conditions @ 0.5% per week with maximum ceiling as per GeM terms and conditions.
14. **Performance Security (e-PBG):** The percentage of e-PBG as per GeM terms & conditions. Bidders shall ensure that the validity of performance security is there as per Guarantee/Warranty requirement plus two months. In case any delay in delivery, vendor shall extend the validity of performance security suitably.
15. **Guarantee/Warranty Requirement:** 24 months from the date of delivery of equipment/items OR 12 months from the date of commissioning of respective ship whichever is later. All other terms and conditions for warranty/Guarantee as per GeM.
16. **INSPECTION:** TPI Will be the Inspection Agency. Other general conditions related to inspection of material are as under:
 - (a) The decision of the Inspecting Authority or their representatives, as the case may be, on any question of the intent, meaning and the scope of Specifications / Standards shall be final, conclusive and binding on the Bidder/ Supplier / Contractor.
 - (b) The TPI (Third Party Inspection) charges shall be directly paid by MDL to MDL nominated TPI agency to Indian Bidders. These charges shall not be included in the bidder's quote as MDL has separate contract with the nominated TPI agency.
 - (c) The Bidder / Supplier / Contractor shall accord all facilities to Purchaser's Inspectors / Nominated Agency to carry out Inspection / Testing during course of manufacture / final testing.
 - (d) Bidder shall directly offer for inspection agency through a call letter under intimation to us and ensure readiness of the items offered for inspection on the scheduled date & time.
 - (e) Receipt Inspection: MDL with Warship Overseeing Team (WOT) shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. Any objection raised by MDL inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
 - (f) Rejection of the material: Any portion of the equipment found defective/rejected, the supplier shall collect the same at his cost from the MDL Yard, all incidental charges being born by supplier, (inclusive of custom duty, if payable), within 30 days from the date of intimation to the supplier of such rejection. The MDL reserves the rights to dispose-off the rejected item at the end of a total period of 90 days in any manner, to the best advantage to the MDL & recover storage charges & any consequential damages, from sale proceeds of such disposal.
17. **Indemnification:** The Bidder / Supplier / Contractor, his employees, licensees, agents or Sub-Supplier / Subcontractor, while on site of the Purchaser for the purpose of this contract, indemnifies the Purchaser against direct damage and/or injury to the property and/or the person of the Purchaser or that of Purchaser's employees, agents, Sub-Contractors / Suppliers occurring and to the extent caused by the negligence of the Bidder / Supplier / Contractor, his employees, licensees, agents or Subcontractor by making good such damages to the property, or compensating personal injury and the total liability for such damages or injury shall be as mutually discussed and agreed to.

18. **Purchaser's Property:** All property (such as materials, drawings, documents etc) issued by the Purchaser or any other individual or firm on behalf of the Purchaser in connection with the contract shall remain confidential, being the property of the Purchaser and the Bidder/Supplier/Contractor shall undertake to return all such property so issued and will be responsible for any or all loss thereof and damage thereto resulting from whatever causes and shall reimburse the Purchaser the full amount of loss and damage.

19. **Issuance of e-Invoice by Vendor:**

(a) Vendors, whose aggregate turnover in any preceding financial year from 2017-18 onwards, exceeds Rs. 10 Crores, as per GST Act, will have to issue an e-Invoice with a QR code and invoice registration no (IRN). However, this rule will not apply to Micro with Udyam Registration No. (URN) as their turnover is less than Rs 5Cr.

(b) Whenever GST is applicable, payment will be released against e-Invoice, or Invoice accompanied with vendor's self-declaration that " we do not fall under the category of registered persons notified under Rule 48(4) of the central GST Rule 2017 and we are not required to comply with e-invoicing provisions under GST Act, as our aggregate turnover in any preceding financial year from 2017-18 onward has not exceeded Rs. 5 Cr as per GST Act".

20. **Contact details:** In case of any clarifications regarding specification, bidders are requested to contact the following person, before the closing date of the tender.

Department	Name of Executives	Contact No	Email
Technical	Mr CGK Rao DGM/HOS/PE(D-P17A)	022 2376 3035	gkrao@mazdock.com
	Mr.Nagaraju Naik M (SB- Design Outfit.)	022 2376 3368	nagarajunaik@mazdock.com
Commercial	Mr. Satish Chandra, DGM/PE (C-P17A)	022 2376 2747	schandra@mazdock.com
	Mr. Sagar Shende, CM (C- P17A)	022 2376 2750	sushende@mazdock.com

Note:

1. Bidder not accepting, complying with the all tender terms and conditions as well as not filling requisite formats in line with tender will fall under liable for rejection.
2. Firm has to submit the contact details like E-mail address, Name of the person, Phone number for further communications.

TECHNICAL SPECIFICATION

1. PROCUREMENT AND INSTALLATION OF TELEMEDICINE ONBOARD FOR Y-12651, Y-12652, Y-12653 & Y-12654 OF P17A PROJECT.
2. GUARANTEE/WARRANTY REQUIRED:-24 MONTHS FROM THE DATE OF DELIVERY OF EQUIPMENT/ITEMS OR 12 MONTHS FROM THE DATE OF COMMISSIONING OF RESPECTIVE SHIP WHICHEVER IS LATER.
3. THE VENDOR HAS TO QUOTE FOR:-
 - (i) OBS FOR TWO YEARS EXPLOITATION POST WARRANTY
 - (ii) WHILE THE OBS IS A LUMP-SUM QUOTE, THE VENDOR SHALL INDICATE THE LIST OF OBS AS AN ANNEXURE TO THE TECHNICAL OFFER. FURTHER, THE VENDOR SHALL ALSO INDICATE PERCENTAGE BREAKUP OF EACH LINE ITEM vis-a-vis THE LUMP-SUM QUOTE FOR OBS.
4. THE VENDOR HAS TO QUOTE FOR:- B & D SPARES FOR FIVE YEARS EXPLOITATION POST WARRANTY.
5. DELIVERY OF ITEMS SHALL BE FROM 3 & 4 MONTHS FROM THE DATE OF PLACEMENT OF ORDER FOR FIRST AND LAST TWO SHIPS RESPECTIVELY.

Sl.no	Material/Service Details	Quantity/unit/Delivery date/Account assignment
10	Material Number:-150000000000089287 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Vital Parameter Monitor OEM Name METSL, India (a) IEC 60601 compliant, (b) Output: Digital, Parameters measured: Simultaneous 12 Lead ECG, SpO2, Pulse, NIBP, Temp HR, RR, Power: Mains/ Battery Operable. Weight (maximum): 2 kgs, Battery Backup: Minimum 4 Hours, Drivers for windows, Linux and Android OS, Automatic online interpretation of ECG, Supports FDA XML, DICOM format Desc of Spare 12-Lead ECG Cable, SPO2 Prob, NIBP Cuff, Temp Prob, A to B USB cable, Power Adaptor	1.000 NOS (Q) Y-12651-2
20	Material Number:-150000000000089288 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ultra Sonography OEM Name FUJIFILM Sonosite Edge II USA Vendor Name Sonosite Edge II IEC60601 compliant, Image display in B, B/B, 4B, & M mode, 128-element convex, 12.1" LCD with Gorilla glass with touchscreen, Battery backup 4 Hrs, Video out and DICOM compatibility, Internal SSD + USB, 2 active ports, USB 3.0, MIL-STD-810G (stronger) Desc of Spare Probe type 128-element convex	1.000 NOS (Q) Y-12651-2

30	Material Number:-150000000000089289 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Dermascope OEM Name MIIS TAIWAN Vendor Name MIIS Horus Scope DDC-100 Type: Should support both Contact and non-contact examinations, Magnification: 10X. Lighting; Integrated Halogen/LED lighting system Output: Digital Interface: USB 2.0, 2Mpixel or higher, Windows 10 or newer, Replacable contact plates Desc of Spare DDC 100, USB Cable, Power Adaptor	1.000 NOS (Q) Y-12651-2
40	Material Number:-150000000000089290 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Otoscope OEM Name MIIS TAIWAN Vendor Name MIIS Horus Scope DOC-100 Lighting; Integrated LED lighting system Output: Digital (Still & Video) Interface: USB 2.0 Resolution: 2M (1280 X 1024) Magnification: Minimum 10X, File Format: JPG, BMP, GIF, PNG, AVI Desc of Spare DOC-100,USB Cable, Power Adaptor	1.000 NOS (Q) Y-12651-2
50	Material Number:-150000000000089291 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Stethoscope OEM Name TAAL museinc TAIWAN Vendor Name museinc Output: Digital Audio Interfaces: USB 2.0/TRS (Audio Jack) Desc of Spare USB cable	1.000 NOS (Q) Y-12651-2

60	<p>Material Number:-150000000000089292</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Head Mounted Camera OEM Name DRDO India Output: Digital video output. Connectivity: Wired connection Camera Dimension (maximum): 2.5 X 2.3 inch Resolution: 640x480 to 160x120/1280 x 800 to 160x90, Frame Rate: Adjustable from 10 to 30 fps Video Compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Video Codec: MJPEG, JPEG for still images Video Features: Adjustable image size and quality, Time stamp and text overlay, Flip and Mirror Nil Parallax, natural light illumination source with focused area illumination, system, controllable autofocus, Throat Microphone and Bone-conduction Earpiece (On board Operational Platform) Connector : TRS ,2.5mm/3.5mm, High-quality Headphones with Noise-cancellation (at hospital end) Desc of Spare Mic, EarPhone</p>	<p>1.000 NOS (Q) Y-12651-2</p>
70	<p>Material Number:-150000000000089293</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Ruggedized Laptop DURABOOK®S15AB OEM Name DURABOOK Ruggedized , MIL Grade Laptop, Minimum 15 TFT display, Core i7 processor 3 MB L3 Cache, 4 GB RAM DDR3, Expandable to 8GB, 1 TB SATA HDD heater standard 1 GB Graphic Card (Intel HD Graphics) DVD RW, (Good Internet Connectivity with Static IP (1 quantity) min. 2mbps Speed. 2 USB Ports.Headphone with Mike. Ethernet, Bluetooth, VGA (for display) Optional features in the Laptop interface software:Video Conferencing Module: VOIP based solution, Requires up to 256Kbps internet bandwidth Includes Web Camera: Logitech 9000 or higher, Suitable for point to point conferencing Desc of Spare Power Adaptor</p>	<p>1.000 NOS (Q) Y-12651-2</p>
80	<p>Material Number:-150000000000089294</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>External HDD for Backup Facility of 2 TB OEM Name WD Or Toshiba India Desc of Spare USB Cable</p>	<p>1.000 NOS (Q) Y-12651-2</p>

90	<p>Material Number:-150000000000089295</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Licensed Telemedicine Software OEM Name METSL India modes: Store and Forward Real-time operating mode Online mode, Architecture: Client- Server (Should operate in modes: Store and Forward Real-time operating mode Online mode, Architecture: Client- Server (Should operate in Stand-alone and network configuration), Data handling: Acquire, Archive, Send, Receive and Store Viewing: Offline and Real-time Access Control: Secured ,Report Generation: PDF/Word/Text, Scheduling: Appointment Scheduling, Video Conferencing: Integrated Video Conferencing feature Connectivity Protocols: TCP/IP Connectivity Options: All Ethernet based Networks, Appointment viewer with alerts & reminders, Regular backup facility Auto Sync facility with server Ability capture, store and transfer physiological sounds captured by the digital stethoscope, Medical device interfaces, Automatic ECG interpretation from Server ,Provisions to upload Training videos & tools.</p>	<p>1.000 NOS (Q) Y-12651-2</p>
100	<p>Material Number:-150000000000089296</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Head phone with Mic and camera OEM Name Logitech India High-quality Headphones with Noise-cancellation Desc of Spare Headphones with Noise</p>	<p>1.000 NOS (Q) Y-12651-2</p>
110	<p>Material Number:-150000000000089297</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Video Conferencing License OEM Name METSL India Video conferencing software has to cater for the following functionalities:- (i)The system has facility to establish videoconferencing session between ship-to-shore, ship-to-ship and shore-to- shore centers (aa)TCC/TSC applications (ab)Video conferencing – •software based and not HW based VC (ac)Multiuser control, security and access control (ii)Supported standards: (a) ITU-T H.323: IP networks (b) Video: H.261, H.263 (c) Audio: G.711, G.722, G.728</p>	<p>1.000 NOS (Q) Y-12651-2</p>

	(d) MCU compatibility: H.243 (e) Bit rate: Bonding 56-768 kbps over IP(f) Frame rate video: 30 fps (g) Video Resolution: (aa) FCIF 352x288 color pixels (ab) QCIF 176x144 pixels (ac) 4CIF 704x576 pixels for still images (H.261 Annex D) (h) Audio Coding Band Bit-rate: (aa) G.711 300-3400 Hz 56 kbps (ab) G.722 50-7000 Hz 48/56 kbps (ac) G.728 50-3400 Hz 16 kbps (iii) Audio Features (a) Echo cancellation, Full Duplex (b) Automatic Gain Control (AGC) ±12 dB (c) Automatic Noise Suppression (d) High-speed data channel for high multimedia (e) Interactivity and fast file transfer (f) Direct access to Network from the system (g) INTERFACES (h) Ethernet 10/100 (RJ45) interface	
120	Material Number:-150000000000089298 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Other Software System and Accessories OEM Name METSL Should provide following specifications for client end application (i) Will support minimum 16 GB of data storagelocally (ii) Has provision for secured access to the data (iii) Has Backup and restore facility	1.000 NOS (Q) Y-12651-2
130	Material Number:-150000000000089299 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ruggedized Carry Case with Foam (2 Numbers of Carry Case) OEM Name METSL India (i) Industrial plastic Cabinet 45-9A (ii) Inner Dimension: 547 x 367 x 200 mm (iii) Outer Dimension: 610 x 436 x 216 mm (iv) Lid / Case Depth: 50 mm /150 mm (v) Packing Weight : 5.2 kg (vi) Weight with Foam:6.24 Kg	1.000 NOS (Q) Y-12651-2

140	<p>Material Number:-150000000000089300</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Printer</p> <p>HL-L2361 Dn Mono Laser printer</p> <p>OEM Name Brother India</p> <p>(a) Printing speed (black normal quality A4):- upto 30 ppm</p> <p>(b) Print Resolution(black best quality): up to 600 dpi X 600 dpi</p> <p>(c) First page out (black A4):- <9 seconds.</p> <p>(d) Standard memory :- 16 MB or higher</p> <p>(e) Standard Connectivity :- High Speed USB2.0 port</p> <p>(f) Network Card :- 10/100 or higher</p>	<p>1.000 NOS (Q) Y-12651-2</p>
150	<p>Material Number:-150000000000089301</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Scanner</p> <p>A3 Flat bed scanner</p> <p>48-bit input, 24-bit output, Up to 600 dpi and Abv, Flat bed scanner, Optical resolution (Max H X Max V):- 600 dpi X 600 dp, A3, 16 bit Input 8 bit output, Out put 24 Bit</p>	<p>1.000 NOS (Q) Y-12651-2</p>
160	<p>Material Number:-150000000000089302</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>L2 cisco c9200l-24t-4g-e manageable switch OR equivalent</p> <p>OEM Name cisco India</p> <p>(a) The switches onboard ships should have 24 ports and must be manageable switches from reputed companies. The cable to be used onboard should be Shielded Twisted Pair (STP) Cat 6. The OFC being used should be 06 core unitube outdoor cable. The remaining networking accessories viz RJ 45 connector, Patch cords etc being used should be branded and should be of good quality, The technical specifications of networking components placed in subsequent paragraphs, Fully manageable Layer 2 and basic Layer 3 with Cisco DNA Center & CLI, Cisco IOS XE with GUI and CLI management</p>	<p>1.000 NOS (Q) Y-12651-2</p>
170	<p>Material Number:-150000000000089303</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Rack 9 U NETRACK</p> <p>OEM Name NETRACK India</p> <p>Rack NRS-S-Series, Lockable Toughened Glass Door, Conforms to DIN 41494 or equivalent standard, Static Load 30kg</p>	<p>1.000 NOS (Q) Y-12651-2</p>

171	Material Number:-150000000000089333 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- OBS OF TELEMEDICINE	1.000 SET (Q) Y-12651-2
173	Material Number:-150000000000089332 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- DOCUMENTATION OF TELEMEDICINE	1.000 SET (Q) Y-12651-2
174	Service Short text:- Installation of Equipments Service Group:- 901000 - MEDICAL EQUIPMENTS The Line item 174 covers the following services	1.000 AU (P) Y-12651-2
10	Service Number :- Description : Installation of Equipments	1.000 AU
180	Material Number:-150000000000089287 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Vital Parameter Monitor OEM Name METSL, India (a) IEC 60601 compliant, (b)Output: Digital, Parameters measured: Simultaneous 12 Lead ECG, SpO2, Pulse, NIBP, Temp HR, RR, Power: Mains/ Battery Operable. Weight (maximum): 2 kgs, Battery Backup: Minimum 4 Hours, Drivers for windows, Linux and Android OS, Automatic online interpretation of ECG, Supports FDA XML, DICOM format Desc of Spare 12-Lead ECG Cable, SPO2 Prob, NIBP Cuff, Temp Prob, A to B USB cable, Power Adaptor	1.000 NOS (Q) Y-12652-2
190	Material Number:-150000000000089288 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ultra Sonography OEM Name FUJIFLIM Sonosite Edge II USA Vendor Name Sonosite Edge II IEC60601 compliant, Image display in B, B/B, 4B, & M mode, 128-element convex, 12.1" LCD with Gorilla glass with touchscreen, Battery backup 4 Hrs, Video out and DICOM compatibility, Internal SSD + USB, 2 active ports, USB 3.0, MIL-STD-810G (stronger) Desc of Spare Probe type 128-element convex	1.000 NOS (Q) Y-12652-2

200	Material Number:-150000000000089289 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Dermoscope OEM Name MIIS TAIWAN Vendor Name MIIS Horus Scope DDC-100 Type: Should support both Contact and non-contact examinations, Magnification: 10X. Lighting; Integrated Halogen/LED lighting system Output: Digital Interface: USB 2.0, 2Mpixel or higher, Windows 10 or newer, Replacable contact plates Desc of Spare DDC 100, USB Cable, Power Adaptor	1.000 NOS (Q) Y-12652-2
210	Material Number:-150000000000089290 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Otoscope OEM Name MIIS TAIWAN	1.000 NOS (Q) Y-12652-2

	Vendor Name MIIS Horus Scope DOC-100 Lighting; Integrated LED lighting system Output: Digital (Still & Video) Interface: USB 2.0 Resolution: 2M (1280 X 1024) Magnification: Minimum 10X, File Format: JPG, BMP, GIF, PNG, AVI Desc of Spare DOC-100,USB Cable, Power Adaptor	
220	Material Number:-150000000000089291 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Stethoscope OEM Name TAAL museinc TAIWAN Vendor Name museinc Output: Digital Audio Interfaces: USB 2.0/TRS (Audio Jack) Desc of Spare USB cable	1.000 NOS (Q) Y-12652-2
230	Material Number:-150000000000089292 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Head Mounted Camera OEM Name DRDO India Output: Digital video output. Connectivity: Wired connection Camera Dimension (maximum): 2.5 X 2.3 inch Resolution: 640x480 to 160x120/1280 x 800 to 160x90, Frame Rate: Adjustable from 10 to 30 fps Video Compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Video Codec: MJPEG, JPEG for still images Video Features: Adjustable image size and quality, Time stamp and text overlay, Flip and Mirror Nil Parallax, natural light illumination source with focused area illumination, system, controllable autofocus, Throat Microphone and Bone-conduction Earpiece (On board Operational Platform) Connector : TRS ,2.5mm/3.5mm, High-quality Headphones with Noise-cancellation (at hospital end) Desc of Spare Mic, EarPhone	1.000 NOS (Q) Y-12652-2

240	<p>Material Number:-150000000000089293</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Ruggedized Laptop DURABOOK®S15AB</p> <p>OEM Name DURABOOK</p> <p>Ruggedized , MIL Grade Laptop, Minimum 15 TFT display, Core i7 processor 3 MB L3 Cache, 4 GB RAM DDR3, Expandable to 8GB, 1 TB SATA HDD heater standard 1 GB Graphic Card (Intel HD Graphics) DVD RW, (Good Internet Connectivity with Static IP (1 quantity) min. 2mbps Speed. 2 USB Ports.Headphone with Mike. Ethernet, Bluetooth, VGA (for display) Optional features in the Laptop interface software:Video Conferencing Module: VOIP based solution, Requires up to 256Kbps internet bandwidth Includes Web Camera: Logitech 9000 or higher, Suitable for point to point conferencing Desc of Spare Power Adaptor</p>	<p>1.000 NOS (Q) Y-12652-2</p>
250	<p>Material Number:-150000000000089294</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>External HDD for Backup Facility of 2 TB</p> <p>OEM Name WD Or Toshiba India</p> <p>Desc of Spare USB Cable</p>	<p>1.000 NOS (Q) Y-12652-2</p>

260	<p>Material Number:-150000000000089295</p> <p>Material group:-</p> <p>901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Licensed Telemedicine Software</p> <p>OEM Name METSL India modes:</p> <p>Store and Forward Real-time operating mode</p> <p>Online mode, Architecture: Client- Server (Should operate in modes: Store and Forward Real-time operating mode</p> <p>Online mode, Architecture: Client- Server (Should operate in Stand-alone and network configuration), Data handling: Acquire, Archive, Send, Receive and Store</p> <p>Viewing: Offline and Real-time Access Control: Secured ,Report Generation: PDF/Word/Text, Scheduling: Appointment Scheduling, Video Conferencing: Integrated Video Conferencing feature</p> <p>Connectivity Protocols: TCP/IP</p> <p>Connectivity Options: All Ethernet based Networks, Appointment viewer with alerts & reminders, Regular backup facility</p> <p>Auto Sync facility with server</p> <p>Ability capture, store and transfer physiological sounds captured by the digital stethoscope, Medical device interfaces, Automatic ECG interpretation from Server ,Provisions to upload Training videos & tools.</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12652-2</p>
270	<p>Material Number:-150000000000089296</p> <p>Material group:-</p> <p>901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Head phone with Mic and camera</p> <p>OEM Name Logitech India</p> <p>High-quality Headphones with Noise-cancellation</p> <p>Desc of Spare Headphones with Noise</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12652-2</p>

280	<p>Material Number:-150000000000089297 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:-</p> <p>Video Conferencing License OEM Name METSL India Video conferencing software has to cater for the following functionalities:- (i)The system has facility to establish videoconferencing session between ship-to-shore, ship-to-ship and shore-to- shore centers (aa)TCC/TSC applications (ab)Video conferencing - •software based and not HW based VC (ac)Multiuser control, security and access control (ii)Supported standards: (a) ITU-T H.323: IP networks (b) Video: H.261, H.263 (c) Audio: G.711, G.722, G.728 (d) MCU compatibility: H.243 (e) Bit rate: Bonding 56-768 kbps over IP (f) Frame rate video: 30 fps (g) Video Resolution: (aa) FCIF 352x288 color pixels (ab) QCIF 176x144 pixels (ac) 4CIF 704x576 pixels for still images (H.261 Annex D) (h)Audio Coding Band Bit-rate: (aa) G.711 300-3400 Hz 56 kbps (ab) G.722 50-7000 Hz 48/56 kbps (ac) G.728 50-3400 Hz 16 kbps (iii)Audio Features (a) Echo cancellation, Full Duplex (b) Automatic Gain Control (AGC) ±12 dB (c) Automatic Noise Suppression (d) High-speed data channel for high multimedia (e) Interactivity and fast file transfer (f) Direct access to Network from the system (g) INTERFACES (h) Ethernet 10/100 (RJ45) interface</p>	<p>1.000 NOS (Q) Y-12652-2</p>
290	<p>Material Number:-150000000000089298 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:-</p> <p>Other Software System and Accessories OEM Name METSL Should provide following specifications for client end application (i) Will support minimum 16 GB of data storagelocally (ii) Has provision for secured access to the data (iii) Has Backup and restore facility</p>	<p>1.000 NOS (Q) Y-12652-2</p>

300	Material Number:-150000000000089299 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ruggedized Carry Case with Foam (2 Numbers of Carry Case) OEM Name METSL India (i) Industrial plastic Cabinet 45-9A (ii) Inner Dimension: 547 x 367 x 200 mm (iii) Outer Dimension: 610 x 436 x 216 mm (iv) Lid / Case Depth: 50 mm /150 mm (v) Packing Weight : 5.2 kg (vi) Weight with Foam:6.24 Kg	1.000 NOS (Q) Y-12652-2
310	Material Number:-150000000000089300 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Printer HL-L2361 Dn Mono Laser printer OEM Name Brother India (a) Printing speed (black normal quality A4):- upto 30 ppm (b) Print Resolution(black best quality): up to 600 dpi X 600 dpi (c) First page out (black A4):- <9 seconds. (d) Standard memory :- 16 MB or higher (e) Standard Connectivity :- High Speed USB2.0 port (f) Network Card :- 10/100 or higher	1.000 NOS (Q) Y-12652-2
320	Material Number:-150000000000089301 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Scanner A3 Flat bed scanner 48-bit input, 24-bit output, Up to 600 dpi and Abv, Flat bed scanner, Optical resolution (Max H X Max V):- 600 dpi X 600 dp, A3, 16 bit Input 8 bit output, Out put 24 Bit	1.000 NOS (Q) Y-12652-2

330	<p>Material Number:-150000000000089302</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>L2 cisco c9200l-24t-4g-e manageable switch OR equivalent</p> <p>OEM Name cisco India</p> <p>(a) The switches onboard ships should have 24 ports and must be manageable switches from reputed companies. The cable to be used onboard should be Shielded Twisted Pair (STP) Cat 6. The OFC being used should be 06 core unitube outdoor cable. The remaining networking accessories viz RJ 45 connector, Patch cords etc being used should be branded and should be of good quality, The technical specifications of networking components placed in subsequent paragraphs, Fully manageable Layer 2 and basic Layer 3 with Cisco DNA Center & CLI, Cisco IOS XE with GUI and CLI management</p>	<p>1.000 NOS (Q) Y-12652-2</p>
340	<p>Material Number:-150000000000089303</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Rack 9 U NETRACK</p> <p>OEM Name NETRACK India</p> <p>Rack NRS-S-Series, Lockable Toughened Glass Door, Conforms to DIN 41494 or equivalent standard, Static Load 30kg</p>	<p>1.000 NOS (Q) Y-12652-2</p>
341	<p>Material Number:-150000000000089333</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>OBS OF TELEMEDICINE</p>	<p>1.000 SET (Q) Y-12652-2</p>
342	<p>Material Number:-150000000000089332</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>DOCUMENTATION OF TELEMEDICINE</p>	<p>1.000 SET (Q) Y-12652-2</p>
343	<p>Service Short text:- Installation of Equipments</p> <p>Service Group:- 901000 - MEDICAL EQUIPMENTS</p> <p>The Line item 343 covers the following services</p>	<p>1.000 AU (P) Y-12652-2</p>
10	<p>Service Number :-</p> <p>Description : Installation of Equipments</p>	<p>1.000 AU</p>

350	<p>Material Number:-150000000000089287</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Vital Parameter Monitor</p> <p>OEM Name METSL, India</p> <p>(a) IEC 60601 compliant, (b)Output: Digital,</p> <p>Parameters measured: Simultaneous 12 Lead ECG, SpO2, Pulse, NIBP, Temp HR, RR,</p> <p>Power: Mains/ Battery Operable. Weight (maximum): 2 kgs, Battery Backup: Minimum 4 Hours, Drivers for windows, Linux and Android</p> <p>OS, Automatic online interpretation of ECG, Supports FDA XML, DICOM format</p> <p>Desc of Spare 12-Lead ECG Cable, SPO2 Prob, NIBP Cuff, Temp Prob, A to B USB cable, Power Adaptor</p>	<p>1.000</p> <p>NOS</p> <p>(Q)Y-12653-2</p>
360	<p>Material Number:-150000000000089288</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS Material</p> <p>Details:-</p> <p>Ultra Sonography</p> <p>OEM Name FUJIFLIM Sonosite Edge II USA</p> <p>Vendor Name Sonosite Edge II</p> <p>IEC60601 compliant, Image display in B, B/B, 4B, & M mode, 128-element convex, 12.1" LCD with Gorilla glass with touchscreen,</p> <p>Battery backup 4 Hrs, Video out and DICOM compatibility, Internal SSD + USB, 2 active ports, USB 3.0, MIL-STD-810G (stronger)</p> <p>Desc of Spare Probe type 128-element convex</p>	<p>1.000</p> <p>NOS</p> <p>(Q)Y-12653-2</p>
370	<p>Material Number:-150000000000089289</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Digital Dermascope</p> <p>OEM Name MIIS TAIWAN</p> <p>Vendor Name MIIS Horus Scope DDC-100</p> <p>Type: Should support both Contact and non-contact examinations, Magnification: 10X. Lighting; Integrated Halogen/LED lighting system</p> <p>Output: Digital</p> <p>Interface: USB 2.0, 2Mpixel or higher, Windows 10 or newer, Replacable contact plates</p> <p>Desc of Spare DDC 100, USB Cable, Power Adaptor</p>	<p>1.000</p> <p>NOS</p> <p>(Q)Y-12653-2</p>

380	Material Number:-150000000000089290 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Otoscope OEM Name MIIS TAIWAN Vendor Name MIIS Horus Scope DOC-100 Lighting; Integrated LED lighting system Output: Digital (Still & Video) Interface: USB 2.0 Resolution: 2M (1280 X 1024) Magnification: Minimum 10X, File Format: JPG, BMP, GIF, PNG, AVI Desc of Spare DOC-100,USB Cable, Power Adaptor	1.000 NOS (Q) Y-12653-2
390	Material Number:-150000000000089291 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Stethoscope OEM Name TAAL museinc TAIWAN Vendor Name museinc Output: Digital Audio Interfaces: USB 2.0/TRS (Audio Jack) Desc of Spare USB cable	1.000 NOS (Q) Y-12653-2
400	Material Number:-150000000000089292 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Head Mounted Camera OEM Name DRDO India Output: Digital video output. Connectivity: Wired connection Camera Dimension (maximum): 2.5 X 2.3 inch Resolution: 640x480 to 160x120/1280 x 800 to 160x90, Frame Rate: Adjustable from 10 to 30 fps Video Compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Video Codec: MJPEG, JPEG for still images Video Features: Adjustable image size and quality, Time stamp and text overlay, Flip and Mirror Nil Parallax, natural light illumination source with focused area illumination, system, controllable autofocus, Throat Microphone and Bone-conduction Earpiece (On board Operational Platform) Connector : TRS ,2.5mm/3.5mm, High-quality Headphones with Noise-cancellation (at hospital end) Desc of Spare Mic, EarPhone	1.000 NOS (Q) Y-12653-2
410	Material Number:-150000000000089293 Material group:- 901000 - MEDICAL EQUIPMENTS	1.000 NOS 30.04.2026

	<p>Material Details:-</p> <p>Ruggedized Laptop DURABOOK®S15AB</p> <p>OEM Name DURABOOK</p> <p>Ruggedized , MIL Grade Laptop, Minimum 15 TFT display, Core i7 processor 3 MB L3 Cache, 4 GB RAM DDR3, Expandable to 8GB, 1 TB</p> <p>SATA HDD heater standard</p> <p>1 GB Graphic Card (Intel HD Graphics)</p> <p>DVD RW, (Good Internet Connectivity with Static IP (1 quantity) min.</p> <p>2mbps Speed.</p> <p>2 USB Ports.Headphone with Mike.</p> <p>Ethernet, Bluetooth, VGA (for display)</p> <p>Optional features in the Laptop interface software:Video Conferencing Module:</p> <p>VOIP based solution, Requires up to 256Kbps internet bandwidth Includes Web Camera: Logitech 9000 or higher, Suitable for point to point conferencing</p> <p>Desc of Spare Power Adaptor</p>	(Q) Y-12653-2
420	<p>Material Number:-150000000000089294</p> <p>Material group:-</p> <p>901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>External HDD for Backup Facility of 2 TB</p> <p>OEM Name WD Or Toshiba India</p> <p>Desc of Spare USB Cable</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12653-2</p>

430	<p>Material Number:-150000000000089295</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Licensed Telemedicine Software</p> <p>OEM Name METSL India modes: Store and Forward Real-time operating mode</p> <p>Online mode, Architecture: Client- Server (Should operate in modes: Store and Forward Real-time operating mode</p> <p>Online mode, Architecture: Client- Server (Should operate in Stand-alone and network configuration), Data handling: Acquire, Archive, Send, Receive and Store</p> <p>Viewing: Offline and Real-time Access Control: Secured ,Report Generation: PDF/Word/Text, Scheduling: Appointment Scheduling, Video Conferencing: Integrated Video Conferencing feature Connectivity Protocols: TCP/IP Connectivity Options: All Ethernet based Networks, Appointment viewer with alerts & reminders, Regular backup facility Auto Sync facility with server Ability capture, store and transfer physiological sounds captured by the digital stethoscope, Medical device interfaces, Automatic ECG interpretation from Server ,Provisions to upload Training videos & tools.</p>	<p>1.000 NOS (Q) Y-12653-2</p>
440	<p>Material Number:-150000000000089296</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Head phone with Mic and camera</p> <p>OEM Name Logitech India</p> <p>High-quality Headphones with Noise-cancellation</p> <p>Desc of Spare Headphones with Noise</p>	<p>1.000 NOS (Q) Y-12653-2</p>

450	<p>Material Number:-150000000000089297</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Video Conferencing License</p> <p>OEM Name METSL India</p> <p>Video conferencing software has to cater for the following functionalities:-</p> <p>(i)The system has facility to establish videoconferencing session between ship-to-shore, ship-to-ship and shore-to- shore centers</p> <p>(aa)TCC/TSC applications</p> <p>(ab)Video conferencing -</p> <ul style="list-style-type: none"> •software based and not HW based VC <p>(ac)Multiuser control, security and access control</p> <p>(ii)Supported standards:</p> <p>(a) ITU-T H.323: IP networks</p> <p>(b) Video: H.261, H.263</p> <p>(c) Audio: G.711, G.722, G.728</p> <p>(d) MCU compatibility: H.243</p> <p>(e) Bit rate: Bonding 56-768 kbps over IP(f)</p> <p>Frame rate video: 30 fps</p> <p>(g) Video Resolution:</p> <p>(aa) FCIF 352x288 color pixels</p> <p>(ab) QCIF 176x144 pixels</p> <p>(ac) 4CIF 704x576 pixels for still images (H.261 Annex D)</p> <p>(h)Audio Coding Band</p> <p>Bit-rate:</p> <p>(aa) G.711 300-3400 Hz 56 kbps</p> <p>(ab) G.722 50-7000 Hz 48/56 kbps</p> <p>(ac) G.728 50-3400 Hz 16 kbps</p> <p>(iii)Audio Features</p> <p>(a) Echo cancellation, Full Duplex</p> <p>(b) Automatic Gain Control (AGC) ±12 dB</p> <p>(c) Automatic Noise Suppression</p> <p>(d) High-speed data channel for high multimedia</p> <p>(e) Interactivity and fast file transfer</p> <p>(f) Direct access to Network from the system</p> <p>(g) INTERFACES</p> <p>(h) Ethernet 10/100 (RJ45) interface</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12653-2</p>
460	<p>Material Number:-150000000000089298</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Other Software System and Accessories</p> <p>OEM Name METSL</p> <p>Should provide following specifications for client end application</p> <p>(i) Will support minimum 16 GB of data storagelocally</p> <p>(ii) Has provision for secured access to the data</p> <p>(iii) Has Backup and restore facility</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12653-2</p>

470	Material Number:-150000000000089299 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ruggedized Carry Case with Foam (2 Numbers of Carry Case) OEM Name METSL India (i) Industrial plastic Cabinet 45-9A (ii) Inner Dimension: 547 x 367 x 200 mm (iii) Outer Dimension: 610 x 436 x 216 mm (iv) Lid / Case Depth: 50 mm /150 mm (v) Packing Weight : 5.2 kg (vi) Weight with Foam:6.24 Kg	1.000 NOS (Q) Y-12653-2
480	Material Number:-150000000000089300 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Printer HL-L2361 Dn Mono Laser printer OEM Name Brother India (a) Printing speed (black normal quality A4):- upto 30 ppm (b) Print Resolution(black best quality): up to 600 dpi X 600 dpi (c) First page out (black A4):- <9 seconds. (d) Standard memory :- 16 MB or higher (e) Standard Connectivity :- High Speed USB2.0 port (f) Network Card :- 10/100 or higher	1.000 NOS (Q) Y-12653-2
490	Material Number:-150000000000089301 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Scanner A3 Flat bed scanner 48-bit input, 24-bit output, Up to 600 dpi and Abv, Flat bed scanner, Optical resolution (Max H X Max V):- 600 dpi X 600 dp, A3, 16 bit Input 8 bit output, Out put 24 Bit	1.000 NOS (Q) Y-12653-2

500	<p>Material Number:-150000000000089302</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>L2 cisco c9200l-24t-4g-e manageable switch OR equivalent</p> <p>OEM Name cisco India</p> <p>(a) The switches onboard ships should have 24 ports and must be manageable switches from reputed companies. The cable to be used onboard should be Shielded Twisted Pair (STP) Cat 6. The OFC being used should be 06 core unitube outdoor cable. The remaining networking accessories viz RJ 45 connector, Patch cords etc being used should be branded and should be of good quality, The technical specifications of networking components placed in subsequent paragraphs, Fully manageable Layer 2 and basic Layer 3 with Cisco DNA Center & CLI, Cisco IOS XE with GUI and CLI management</p>	<p>1.000 NOS (Q) Y-12653-2</p>
510	<p>Material Number:-150000000000089303</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Rack 9 U NETRACK</p> <p>OEM Name NETRACK India</p> <p>Rack NRS-S-Series, Lockable Toughened Glass Door, Conforms to DIN 41494 or equivalent standard, Static Load 30kg</p>	<p>1.000 NOS (Q) Y-12653-2</p>
511	<p>Material Number:-150000000000089333</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>OBS OF TELEMEDICINE</p>	<p>1.000 SET (Q) Y-12653-2</p>
512	<p>Material Number:-150000000000089332</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>DOCUMENTATION OF TELEMEDICINE</p>	<p>1.000 SET (Q) Y-12653-2</p>
513	<p>Service Short text:- Installation of Equipments</p> <p>Service Group:- 901000 - MEDICAL EQUIPMENTS</p> <p>The Line item 513 covers the following services</p>	<p>1.000 AU (P) Y-12653-2</p>
10	<p>Service Number :-</p> <p>Description : Installation of Equipments</p>	<p>1.000 AU</p>

520	<p>Material Number:-150000000000089287</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Vital Parameter Monitor</p> <p>OEM Name METSL, India</p> <p>(a) IEC 60601 compliant, (b)Output: Digital, Parameters measured: Simultaneous 12 Lead ECG, SpO2, Pulse, NIBP, Temp HR, RR, Power: Mains/ Battery Operable. Weight (maximum): 2 kgs, Battery Backup: Minimum 4 Hours, Drivers for windows, Linux and Android OS, Automatic online interpretation of ECG, Supports FDA XML, DICOM format</p> <p>Desc of Spare 12-Lead ECG Cable, SPO2 Prob, NIBP Cuff, Temp Prob, A to B USB cable, Power Adaptor</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12654-2</p>
530	<p>Material Number:-150000000000089288</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Ultra Sonography</p> <p>OEM Name FUJIFILM Sonosite Edge II USA</p> <p>Vendor Name Sonosite Edge II</p> <p>IEC60601 compliant, Image display in B, B/B, 4B, & M mode, 128-element convex, 12.1" LCD with Gorilla glass with touchscreen, Battery backup 4 Hrs, Video out and DICOM compatibility, Internal SSD + USB, 2 active ports, USB 3.0, MIL-STD-810G (stronger)</p> <p>Desc of Spare Probe type 128-element convex</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12654-2</p>
540	<p>Material Number:-150000000000089289</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Digital Dermoscope</p> <p>OEM Name MIIS TAIWAN</p> <p>Vendor Name MIIS Horus Scope DDC-100</p> <p>Type: Should support both Contact and non-contact examinations, Magnification: 10X. Lighting; Integrated Halogen/LED lighting system</p> <p>Output: Digital</p> <p>Interface: USB 2.0, 2Mpixel or higher, Windows 10 or newer, Replacable contact plates</p> <p>Desc of Spare DDC 100, USB Cable, Power Adaptor</p>	<p>1.000</p> <p>NOS</p> <p>(Q) Y-12654-2</p>

550	Material Number:-150000000000089290 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Otoscope OEM Name MIIS TAIWAN Vendor Name MIIS Horus Scope DOC-100 Lighting; Integrated LED lighting system Output: Digital (Still & Video) Interface: USB 2.0 Resolution: 2M (1280 X 1024) Magnification: Minimum 10X, File Format: JPG, BMP, GIF, PNG, AVI Desc of Spare DOC-100,USB Cable, Power Adaptor	1.000 NOS (Q) Y-12654-2
560	Material Number:-150000000000089291 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Digital Stethoscope OEM Name TAAL museinc TAIWAN Vendor Name museinc Output: Digital Audio Interfaces: USB 2.0/TRS (Audio Jack) Desc of Spare USB cable	1.000 NOS (Q) Y-12654-2
570	Material Number:-150000000000089292 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Head Mounted Camera OEM Name DRDO India Output: Digital video output. Connectivity: Wired connection Camera Dimension (maximum): 2.5 X 2.3 inch Resolution: 640x480 to 160x120/1280 x 800 to 160x90, Frame Rate: Adjustable from 10 to 30 fps Video Compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Video Codec: MJPEG, JPEG for still images Video Features: Adjustable image size and quality, Time stamp and text overlay, Flip and Mirror Nil Parallax, natural light illumination source with focused area illumination, system, controllable autofocus, Throat Microphone and Bone-conduction Earpiece (On board Operational Platform) Connector : TRS ,2.5mm/3.5mm, High-quality Headphones with Noise-cancellation (at hospital end) Desc of Spare Mic, EarPhone	1.000 NOS (Q) Y-12654-2

580	<p>Material Number:-150000000000089293 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:-</p> <p>Ruggedized Laptop DURABOOK®S15AB OEM Name DURABOOK Ruggedized , MIL Grade Laptop, Minimum 15 TFT display, Core i7 processor 3 MB L3 Cache, 4 GB RAM DDR3, Expandable to 8GB, 1 TB SATA HDD heater standard 1 GB Graphic Card (Intel HD Graphics) DVD RW, (Good Internet Connectivity with Static IP (1 quantity) min. 2mbps Speed. 2 USB Ports.Headphone with Mike. Ethernet, Bluetooth, VGA (for display) Optional features in the Laptop interface software:Video Conferencing Module: VOIP based solution, Requires up to 256Kbps internet bandwidth Includes Web Camera: Logitech 9000 or higher, Suitable for point to point conferencing Desc of Spare Power Adaptor</p>	<p>1.000 NOS (Q) Y-12654-2</p>
590	<p>Material Number:-150000000000089294 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:-</p> <p>External HDD for Backup Facility of 2 TB OEM Name WD Or Toshiba India Desc of Spare USB Cable</p>	<p>1.000 NOS (Q) Y-12654-2</p>
600	<p>Material Number:-150000000000089295 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:-</p> <p>Licensed Telemedicine Software OEM Name METSL India modes: Store and Forward Real-time operating mode Online mode, Architecture: Client- Server (Should operate in modes: Store and Forward Real-time operating mode Online mode, Architecture: Client- Server (Should operate in Stand-alone and network configuration), Data handling: Acquire, Archive, Send, Receive and Store Viewing: Offline and Real-time Access Control: Secured ,Report Generation: PDF/Word/Text, Scheduling: Appointment Scheduling, Video Conferencing: Integrated Video Conferencing feature Connectivity Protocols: TCP/IP</p>	<p>1.000 NOS (Q) Y-12654-2</p>

	Connectivity Options: All Ethernet based Networks, Appointment viewer with alerts & reminders, Regular backup facility Auto Sync facility with server Ability capture, store and transfer physiological sounds captured by the digital stethoscope, Medical device interfaces, Automatic ECG interpretation from Server ,Provisions to upload Training videos & tools.	
610	Material Number:-150000000000089296 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Head phone with Mic and camera OEM Name Logitech India High-quality Headphones with Noise-cancellation Desc of Spare Headphones with Noise	1.000 NOS (Q) Y-12654-2

620	<p>Material Number:-150000000000089297</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Video Conferencing License</p> <p>OEM Name METSL India</p> <p>Video conferencing software has to cater for the following functionalities:-</p> <p>(i)The system has facility to establish videoconferencing session between ship-to-shore, ship-to-ship and shore-to- shore centers</p> <p>(aa)TCC/TSC applications</p> <p>(ab)Video conferencing -</p> <ul style="list-style-type: none"> •software based and not HW based VC <p>(ac)Multiuser control, security and access control</p> <p>(ii)Supported standards:</p> <p>(a) ITU-T H.323: IP networks</p> <p>(b) Video: H.261, H.263</p> <p>(c) Audio: G.711, G.722, G.728</p> <p>(d) MCU compatibility: H.243</p> <p>(e) Bit rate: Bonding 56-768 kbps over IP(f)</p> <p>Frame rate video: 30 fps</p> <p>(g) Video Resolution:</p> <p>(aa) FCIF 352x288 color pixels</p> <p>(ab) QCIF 176x144 pixels</p> <p>(ac) 4CIF 704x576 pixels for still images (H.261 Annex D)</p> <p>(h)Audio Coding Band</p> <p>Bit-rate:</p> <p>(aa) G.711 300-3400 Hz 56 kbps</p> <p>(ab) G.722 50-7000 Hz 48/56 kbps</p> <p>(ac) G.728 50-3400 Hz 16 kbps</p> <p>(iii)Audio Features</p> <p>(a) Echo cancellation, Full Duplex</p> <p>(b) Automatic Gain Control (AGC) ±12 dB</p> <p>(c) Automatic Noise Suppression</p> <p>(d) High-speed data channel for high multimedia</p> <p>(e) Interactivity and fast file transfer</p> <p>(f) Direct access to Network from the system</p> <p>(g) INTERFACES</p> <p>(h) Ethernet 10/100 (RJ45) interface</p>	<p>1.000 NOS (Q) Y-12654-2</p>
630	<p>Material Number:-150000000000089298</p> <p>Material group:- 901000 - MEDICAL EQUIPMENTS</p> <p>Material Details:-</p> <p>Other Software System and Accessories</p> <p>OEM Name METSL</p> <p>Should provide following specifications for client end application</p> <p>(i) Will support minimum 16 GB of data storagelocally</p> <p>(ii) Has provision for secured access to the data</p> <p>(iii) Has Backup and restore facility</p>	<p>1.000 NOS (Q) Y-12654-2</p>

640	Material Number:-150000000000089299 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Ruggedized Carry Case with Foam (2 Numbers of Carry Case) OEM Name METSL India (i) Industrial plastic Cabinet 45-9A (ii) Inner Dimension: 547 x 367 x 200 mm (iii) Outer Dimension: 610 x 436 x 216 mm (iv) Lid / Case Depth: 50 mm /150 mm (v) Packing Weight : 5.2 kg (vi) Weight with Foam:6.24 Kg	1.000 NOS (Q) Y-12654-2
650	Material Number:-150000000000089300 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Printer HL-L2361 Dn Mono Laser printer OEM Name Brother India (a) Printing speed (black normal quality A4):- upto 30 ppm (b) Print Resolution(black best quality): up to 600 dpi X 600 dpi (c) First page out (black A4):- <9 seconds. (d) Standard memory :- 16 MB or higher (e) Standard Connectivity :- High Speed USB2.0 port (f) Network Card :- 10/100 or higher	1.000 NOS (Q) Y-12654-2
660	Material Number:-150000000000089301 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- Scanner A3 Flat bed scanner 48-bit input, 24-bit output, Up to 600 dpi and Abv, Flat bed scanner, Optical resolution (Max H X Max V):- 600 dpi X 600 dp, A3, 16 bit Input 8 bit output, Out put 24 Bit	1.000 NOS (Q) Y-12654-2

670	Material Number:-150000000000089302 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- L2 cisco c9200l-24t-4g-e manageable switch OR equivalent OEM Name cisco India (a) The switches onboard ships should have 24 ports and must be manageable switches from reputed companies. The cable to be used onboard should be Shielded Twisted Pair (STP) Cat 6. The OFC being used should be 06 core unitube outdoor cable. The remaining networking accessories viz RJ 45 connector, Patch cords etc being used should be branded and should be of good quality, The technical specifications of networking components placed in subsequent paragraphs, Fully manageable Layer 2 and basic Layer 3 with Cisco DNA Center & CLI, Cisco IOS XE with GUI and CLI management	1.000 NOS (Q) Y-12654-2
680	Material Number:-150000000000089303 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:Rack 9 U NETRACK OEM Name NETRACK India Rack NRS-S-Series, Lockable Toughened Glass Door, Conforms to DIN 41494 or equivalent standard, Static Load 30kg	1.000 NOS (Q) Y-12654-2
681	Material Number:-150000000000089333 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- OBS OF TELEMEDICINE	1.000 SET (Q) Y-12654-2
682	Material Number:-150000000000089332 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- DOCUMENTATION OF TELEMEDICINE	1.000 SET (Q) Y-12654-2
683	Service Short text:- Installation of Equipments Service Group:- 901000 - MEDICAL EQUIPMENTS The Line item 683 covers the following services	1.000 AU (P) Y-12654-2
10	Service Number :- Description : Installation of Equipments	1.000 AU

684	Material Number:-150000000000089334 Material group:- 901000 - MEDICAL EQUIPMENTS Material Details:- B & D SPARES OF TELEMEDICINE	1.000 SET (Q) Y-12908-1
-----	----------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------



MAZAGON DOCK SHIPBUILDERS LIMITED


(A Govt. of India Undertaking)

**SHIPBUILDING DESIGN OUTFIT
DOCKYARD ROAD, MUMBAI - 400 010.**

**TECHNICAL SPECIFICATION FOR PROCUREMENT AND INSTALLATION
OF
TELEMEDICINE**


PROJECT : P-17 A
YARD NOS. : 12651 / 12652 / 12653 / 12654
CLIENT : IHQ OF MOD (N)
DOCUMENT NO. : DR/P17A/TM

REV NO.	DESCRIPTION	DATE	AUTHORIZED BY
</			

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	2 of 22

CONTENTS

CHAPTER	DESCRIPTION	PAGE NO.
1	GENERAL REQUIREMENTS	03 - 07
2	TECHNICAL REQUIREMENTS	08 - 13
3	SCOPE OF SUPPLY	14-15
4	MISCELLANEOUS	16-17
	ANNEXURES	
	1. ILMS FORMAT FOR OBS & B&D	18
	2. COMPLIANCE MATRIX	19-22

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	3 of 22

CHAPTER 1-GENERAL

1.1 Introduction

This Statement of Technical Requirement establishes the specifications for design, supply, interface, testing and commissioning of Telemedicine System comprising COTS equipment 01 set for shipset for four (04) ships of Project P17A for Indian Navy.

1.2 Design, Environmental and Seaway Conditions

1.2.1 The equipment and the accessories including all associated sub system should be capable of operating under the following conditions:

Ambient air temperature -10°C to 45°C

Relative Air humidity 90% at 32°C

1.2.2 Area of Operation: The Ship is expected to operate worldwide.

1.2.3 List/Roll/Pitch: All the equipment shall be capable of continuous operation when fitted in any direction up to an angle of 30° from the vertical plane passing through the centerline of the equipment.

1.3 Guarantee & Warranty

1.3.1 Warranty: The warranty shall be for a period of 24 months from the date of delivery of equipment/ items to the yard or 12 months from the date of commissioning of the respective ship to the Indian Navy, whichever later. The dispatch schedule will be finalized jointly by shipyard/OEM at the time of placement of PO. The associated equipment supplied and each component used in the manufacture thereof shall be free from all types of defects / failures.

1.3.2 If during the period of warranty, the defect is reported wherein the equipment failed to perform as per specifications, the OEM shall either replace or rectify the defect free of charge within 14 days of notification. Warranty of the equipment would be extended by such duration for the repair / replacement done.

1.3.3 Spares required for warranty repairs shall be provided free of cost by OEM. The OEM also will diagnose, test, adjust, calibrate and repair/ replace the goods/equipment arising due to accidents, by neglect or misuse by the operator or damage due to transportation of the goods by the Yard/Customer during the warranty period, at the cost mutually agreed to between the Yard/Customer and the OEM, subject to acceptance of the attributability by the



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE

TM
0
18.11.2025
4 of 22

Yard/Customer of such damage, which will be intimated by the OEM to the Yard/Customer.

- 1.3.4 The OEM will provide necessary service and repair back up during the warranty period of the equipment and he will make endeavor that the downtime is within 14 days at any one time from the notification of such defects. However, subject to the prevailing conditions, location of the vessel or time for sourcing the spares, additional time may be required for rectification and this shall be intimated by OEM prior to initiating the repairs.

1.4 Technical Documentation

- 1.4.1 Documentation for Telemedicine system are to be supplied by OEM, in accordance with latest version of EED-S-048 or equivalent. The documents may be combined together as applicable: -
- (a) Operation Manual - 10 hard copies
 - (b) Technical Description Manual - 10 hard copies
 - (c) Maintenance & repair Manual - 10 hard copies
 - (d) Installation Manual - 10 hard copies
 - (e) Comprehensive Part Identification List (CPL / PIL) with list of all changeable / replaceable parts - 10 hard copies
 - (f) As made equipment drawings - 10 hard copies
 - (g) Two (02) nos. of Soft copies of all the above document are to be provided in separate CD (i.e.: 02 nos. of CD) for each ship.
- 1.4.2 All trial documents should be submitted for clearance by appropriate authority six months prior commencement of equipment/system trials. The final revised documents should be available at the time of trials.
- 1.4.3 The Parts Identification List (PIL) / Comprehensive Part Identification List (CPL) in ILMS format to be provided to the buyer for all equipment along with MRLS one month prior to formulation of B&D.
- 1.4.4 As made drawings, schematic and layouts of systems along with system description and operating procedure, system balancing, repairs and refit documents, maintenance schedule recommended routines, OBS and B&D inventory are to be enclosed within these manuals, as applicable, (and not provided loose) in a manner that they can be easily removed and replaced.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.

REV. NO.

DATE

PAGE

TM

0

18.11.2025

5 of 22

1.4.5 Following indicative documents to be submitted along with the Offer:

Sl. No	Requirement
1.	Dimension &, footprint drawing, Maintenance Envelopes for equipment including Weight and Center of Gravity of the equipment
2.	BOM
3.	Heat Dissipation details of Equipment and its auxiliaries
4.	Schematic drawing (scope of supply details are also to be indicated)
5.	Proposed System Architecture/ Block Diagram
6.	Power supply requirements with load <ul style="list-style-type: none">• Power Supply:• Rated Capacity:• Power Consumption (Max/Operation):• Power Consumption (Min/Standby):
7.	Drawing of loose parts showing maintenance space requirement and preferred location onboard including installation constraints, if any
8.	List of equipment and accessories not included in the scope of supply but required for the proper functioning of the system
9.	Draft QAP/ IN approved QAP



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.	TM
REV. NO.	0
DATE	18.11.2025
PAGE	6 of 22

1.4.6 Following Binding Data delivery schedule shall be followed:

Sl. No	Drawings & Documents	Delivery Time (From PO)
Essential Binding Data		
1.	Binding data including dimensions, footprint, weight details, power Supply requirements, Maintenance Envelopes for equipment including Center of Gravity of the equipment	03 weeks after placement of PO
2.	BOM	03 weeks after placement of PO
3.	Schematic drawing	03 weeks after placement of PO
4.	Heat Dissipation details for all equipment	03 weeks after placement of PO
5.	Maintenance and parts removal space required	03 weeks after placement of PO
6.	Connectivity/ Terminal Connection Diagram	04 weeks after placement of PO
7.	Recommended Types and sizes of Cables	04 weeks after placement of PO
Certificates		
8.	QAP test reports, Manufacturer test certificates	Along with delivery
Documents/Manual		
9.	Installation manual	06 weeks after placement of PO
10.	Test & Trial Plan	15 weeks placement of PO
11.	Technical Manual, Operational guide, Maintenance manual	06 weeks before Delivery
12.	Maintenance schedule giving details of tasks to be performed during equipment servicing	06 weeks before Delivery
13.	Part manual	06 weeks before Delivery



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.	TM
REV. NO.	0
DATE	18.11.2025
PAGE	7 of 22

1.4.7 Certificates:

- (a) The certificates should be delivered as applicable and as required by Indian Navy.
- (b) Any document, certificate and clarification asked by Indian Navy during construction and trials of the ships are to be furnished by OEM for the equipment, auxiliaries and loose parts supplied, up to the satisfaction of the Indian Navy.
- (c) All certificates should be delivered in one (01) original and four (04) hard copies and one (01) No. soft copy. All Certificates to be provided in English language.

1.5 Testing / Trials and Inspection

Testing / Trials and Inspection shall be undertaken as per approved Acceptance Test Plan (ATP). Acceptance shall include stage wise trials viz. HATs/Ops Checks, as applicable. Supplier would coordinate with the shipyard for offering of trials of system.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE

TM
0
18.11.2025
8 of 22

CHAPTER 2- TECHNICAL REQUIREMENTS

2.1 Function and Performance

2.1.1 The Telemedicine facility shall be provided in order to facilitate better patient management by means of prompt specialist consultation.

2.1.2 The Telemedicine would provide remote health care & monitoring on- board operational platforms.

2.2 Applicable Standards for the Equipment/System

2.2.1 Design of cabinets/units and placement of connectors should be such that operation and maintenance onboard is not cumbersome. Sufficient access should be provided for replacement of defective modules/ cards.

2.2.2 The unit should be of convenient form factor or design should allow disassembly to smaller units, which can be re-assembled at site so as to allow passage through doors and hatches.

2.3 Acceptable Limits, Tolerances, Capacity, Redundancy and Back Up Supply, Growth Margin

2.3.1 Acceptance limits for system's parameters, load capacities, redundancy at various level etc. to be defined by OEM in line with system design and configuration.

2.4 Design, Construction and configuration, mounting Arrangements


2.4.1 The requirement of telemedicine facility shall be incorporated as essential feature in Sickbay (MO's Work Station).

2.4.2 The ship shall have single node telemedicine LAN, with the node located at locations specified in Para 2.4.1.

2.4.3 This node will be connected to Rukmani node via Network switch.

2.4.4 The backbone of the network to be CAT6 and the cable will be supplied by Shipyard.

2.4.5 The Generic network setup for the telemedicine facility to be as shown below:

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	9 of 22

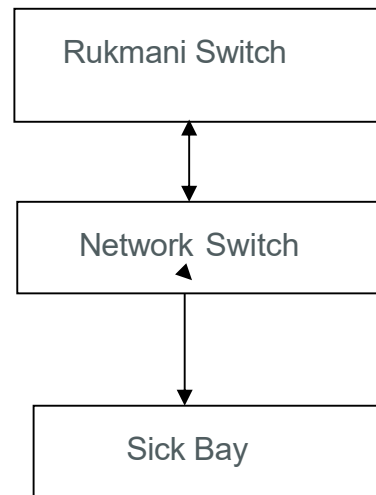


Fig. 1- Layout of Telemedicine Network Onboard Ship

2.4.6 All Portable equipment shall be provided in a rugged carry case so as to carry it to the location of use on the vessel

2.5 Interface definition and protocol

2.5.1 System to be interfaced with Rukmani via Network switch through CAT6 cable.

2.6 Space, Weight and Size

2.6.1 The equipment/ sub system units should be of convenient form factor or design should allow dis-assembly to smaller units. The equipment should not be too bulky and heavy and should have capability for undertaking re- assembling at site, so as to allow passage through doors and hatches.

2.7 Physical and material characteristics, surface coating, painting.

2.7.1 Painting: The paint is to be suitable for the equipment to operate without restrictions in tropical region. Painting for Electrical equipment shall conform to Marine standard. The applicable colour code as OEM standard to be adhered.

2.8 Maintainability, Availability, Reliability

2.8.1 All sensors and equipment should have reliability and maintainability for a mission time of 60 days at a stretch.

2.8.2 Modular replacement be considered to the maximum extent possible to perform corrective maintenance or repair actions.

2.8.3 The Repair by Replacement concept is to be ensured for onboard maintenance while optimizing cost- effectiveness.

2.8.4 Mean Time between Failure (MTBF): To be defined by OEM, if



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE

TM
0
18.11.2025
10 of 22

applicable.

2.8.5 Mean Time to Repair {MTTR}: To be defined by OEM, if applicable.

2.9 Operation Cycle, Operational Life

Product life shall be minimum of 30 years excluding electronic equipment for which the minimum period would be 10 years.

2.10 Electrical Requirements

2.10.1 Power Supply available onboard:

(a) 230 V AC, 50 Hz, 1Phase.

Notes: In case of any special power requirements other than the standard voltages mentioned above, OEM has to ensure means of generating the same within his system from the available power and system to be catered accordingly. The equipment shall be capable of operating as per below indicated voltage and frequency variations

(a) AC Voltage Permanent variation +6%/- 10%

(b) AC Voltage Transient variation +/-20% (1.5s recovery time)

(c) AC Frequency Permanent variation +/-5%

(d) AC Frequency Transient variation +/-10% (5s recovery time)

2.10.2 Connectorisation: Supplier will be responsible for the all work pertaining to connectorisation (only special cables) on-board ship. All items/ accessories/ tools/ consumables required for connectorisation and check wire will be in the scope of OEM.

2.10.3 Earthing: All electrical devices and control panel shall be provided with external earth terminal of brass or stainless steel.

2.11 Noise and Vibration & Shock Standards

All Electrical and Electronic Equipments are to be suitable for marine application. Necessary shock mounts shall be provided for Equipment/ units wherever required.

2.12 EMI / EMC

2.12.1 The equipment design shall consider electromagnetic interference (EMI) coming from the external sources, generated from within its own enclosure and degrading the performance of the equipment.

2.12.2 EMI shall be reduced by judicious selection of components and use of good engineering practices like grounding, bonding and shielding.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.	TM
REV. NO.	0
DATE	18.11.2025
PAGE	11 of 22

2.13 Quality Assurance Plan

2.13.1 QAP needs to be prepared by OEM in accordance with all *IN* standards & requirements. A draft QAP/*IN* approved QAP shall be submitted along with offer and which shall be forwarded to *IN* through shipyard for approval.

2.13.2 QAP Tests shall be inspected by *IN*/ Third-Party as per the approved QAP.

2.14 Safety/Lifting Arrangements/Tally & Diagram Plates

2.14.1 Safety

- (a) 230V danger tally shall be provided on the equipment at a prominent place where required.
- (b) Safety markings on main equipment and associated devices shall be provided.

2.14.2 Lifting arrangement:

- (a) Lifting arrangement should be suitably provided for the equipment as applicable, considering installation, removal and maintenance activity onboard.
- (b) Equipment weighing over 40 kg shall have lifting eyes to facilitate lifting.

2.15 Spares (OBS & B&D), Special Tools and Test Equipment Accessories

2.15.1 OBS

- (a) On Board Spares (OBS) – 01 set per ship shall be provided.
- (b) An itemized list of special tools, OBS for two (02) years exploitation of the ship is to be furnished along with the quotation for the main equipment.
- (c) The OBS list shall be provided in the ILMS format enclosed at Annexure 1. Separate offer for OBS shall be provided along with main offer.
- (d) The OBS and special tools and test equipment are to cater for all the onboard maintenance routines and possible repair requirements. The list of MRL-OBS shall be discussed and finalized.

2.15.2 The MRL-OBS has to be recommended based on the likely consumption rate of the spares and on the exploitation pattern of the equipment. In case the equipment has been built earlier/equipment is already in usage, the spare parts requirement for the associated equipment shall be based on statistical consumption



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE

TM
0
18.11.2025
12 of 22

pattern, rather than only being based on the MRLS. Buyer would also have the option to amend the MRL-OBS proposed by the bidder during the Technical Negotiation of individual equipment to ensure its sufficiency, based on its past experience of exploitation of same/ similar equipment.

2.15.3 Base & Depot Spares


- (a) Base & Depot Spares/Comprehensive Part Lists – 01 set for the project shall be provided.
- (b) Base and depot spares recommendation is to cover maintenance/overhaul requirements for Five (05) years exploitation. Recommendation for insurance holding of long lead items is also to be indicated.
- (c) The B&D list shall be provided in the ILMS format enclosed at Annexure 1. Separate offer for B&D spares shall be provided along with main offer.
- (d) This list would contain price, description, Pattern no. and quantity fitted on each equipment in respect of various parts/ components.

2.16 Product Support

2.16.1 OEM is to provide product support in terms of maintenance, materials and spares for a Minimum period of 30 years excluding electronic equipment for which the minimum period would be 10 years. OEM is to provide product support for the said period at the owner's (IN) designated Naval base port. Even after the said mandatory period, OEM would be bound to give at least 2 years notice to the Buyer prior to closure of the said production line, to assess the requirement of life time buy of all spares before closure of the said production line.

2.16.2 Technical Assistance/Service

- (a) The OEM shall provide the necessary representative(s) to assist, as and when required, in carrying out inspection and supervise the work that is done on the equipment, during the various phases as receipt inspection of the items at store, Preparation for installation of equipment by shipyard, Monitoring of proper equipment preservation during storage, On-board erection and alignment, Setting to Work (including fitment of latest calibrated instrumentation), Harbour Trials, Assistance in trouble shooting, Assistance in operation during equipment guarantee period. Para 4.3 also refers.
- (b) Special tools and instrumentation (with valid calibration certificate) required for installation. commissioning testing/trials at yard premises are to be carried by OEM service engineer.

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	13 of 22

2.17 Training

- 2.17.1 The supplier shall conduct an operational and maintenance training course at the shipyard premises to the ship's crew/maintainers.
- 2.17.2 Training shall be conducted for a crew of 02 for 01 day.
- 2.17.3 Complete training package for on board exploitation, maintenance and for second level maintenance along with tools and test kit to be offered. All training material shall thereafter be handed over to Navy for future training requirements. The training schedule shall be prepared in consultation with WOT/Ship Staff/Shipyard well in advance.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE


TM
0
18.11.2025
14 of 22

CHAPTER 3 - SCOPE OF SUPPLY

3.1 Scope of Supply

An indicative table is placed below: -

Ser	Requirements	Qty	Remarks
(a)	Clinical Devices consist of following :		
i.	Vital Parameter Monitor	01No.	
ii.	Ultra Sonography	01No.	
iii.	Digital Dermoscope	01 No.	
iv.	DigitalOtoscope	01 No.	
v.	Digital Stethoscope	01 No.	
vi.	Head Mounted camera	01No.	
(b)	Telemedicine console consist of following :		
i.	Ruggedized Laptop	01No.	
ii.	External Hard disk drive (HDD) for Backup Facility of 2 TB	01 No.	
iii.	Licensed Telemedicine Software	01Set	
iv.	Headphone with Mic and Camera	01 No	
v.	Video conferencing License	01 No.	
vi.	Other software system and accessories	01Set	
vii.	Ruggedized carry case with Foam (2 Nos. of carry case)	01set	
(c)	Printer	01 No.	
(d)	Scanner	01 No.	
(e)	Rack 9U NETRACK	01No.	
(f)	L2 manageable Switches	01No.	

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	15 of 22

(g)	RJ 45 Socket with accessories	As required	
(h)	Cables and connectors (Patch cords, data/power cables for clinical & console devices)	As required	
(i)	Accessories	01set	
(j)	Technical Documentation	01 set	Ref Para 1.4
(k)	Training	01 set	Ref Para 2.17
(l)	Packing & Preservation	01 set	Ref Para 4.1
(m)	Transportation & Insurance	01 set	Ref Para 4.1
(n)	Warranty & Guarantee	01set	Ref Para 1.3
(o)	OBS	01 set	Ref Para 2.15.1
(p)	Installation & Commissioning Spares	01 set	Ref Para 4.4
(q)	Service Support (installation/STW/trials)	01set	Ref Para 2.16.2

Note: Any item not explicitly mentioned above but required to ensure system completeness shall be in OEM scope of supply. Complete list of items shall be submitted with the offer.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.
REV. NO.
DATE
PAGE

TM
0
18.11.2025
16 of 22

CHAPTER 4 - MISCELLANEOUS

4.1 Preservation & Packaging/Transportation/ Special provisions for storage

- 4.1.1 The preservation and packaging of the equipment to ensure that there is no damage in transit and deterioration during the period when the item is instorage
- 4.1.2 Duration of validity of preservation to be indicated.
- 4.1.3 Methodology for receipt inspection without affecting preservation (for main equipment and loose supplied items) is to be indicated by the OEM including any requirement for re-preservation.
- 4.1.4 The procedure for re-preservation to be supplied by the firm.
- 4.1.5 Requirement of special provisions for storage and transportation to be indicated.
- 4.1.6 Any consumables required for preservation/ re-preservation beyond a stipulated time period to be clearly indicated by OEM.
- 4.1.7 The equipment packaging, waterproofing, containerization and preservation are to be done in accordance with MIL-STD-2073-E1 for direct vendor deliveries to shipyard, meant for installation onboard the vessel.

4.2 Inspection

Pre Dispatch Inspection (POI) of equipment to be fitted on vessels would be at the discretion of the Shipyard/Indian Navy.

4.3 Requirement of Service Engineer for Design efforts, Installation, commissioning, HATs

OEM shall clearly indicate the no. of days and no. of trips required by them for their equipment's /items installation, commissioning, HATs separately.

4.4 Installation and Commissioning Spares

- 4.4.1 The supplier's service engineer shall carry one set of installation and commissioning spares during STW /HAT (wherever required).
- 4.4.2 Other Requirements
 - (a) Equipment shall be suitable for marine application.



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

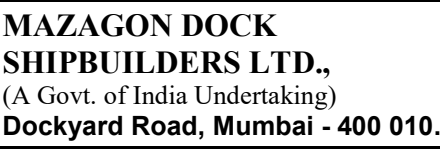
**DESIGN
OUTFIT**
YD 12651-12654

P.A. NO.	TM
REV. NO.	0
DATE	18.11.2025
PAGE	17 of 22

- (b) Details which are not mentioned in this specification, but essential for this Equipment to be furnished in accordance with maker's practice.
- (c) Asbestos shall not be used for all the parts of equipment and heat Insulation.

4.5 Compliance Matrix

- 4.5.1 The offer should contain a comparative statement of the requirements vis-a-vis specifications of the respective items offered. In case the items offered are not fully conforming to the details given in the specifications, the deviations are to be specifically spelt out with valid clarifications. No deviation shall be granted after placement of order .
- 4.5.2 A compliance table in the format placed at Annexure 2 to be duly filled and shared along with the technical offer.



YD 12651-12654

PAGE

18 of 22

ILMSformatforOBS&B&D

[illegible]



**MAZAGON DOCK
SHIPBUILDERS LTD.,**
(A Govt. of India Undertaking)
Dockyard Road, Mumbai - 400 010.

**DESIGN
OUTFIT**

YD 12651-12654

P.A. NO.

REV. NO.

DATE

PAGE

TM

0


18.11.2025

19 of 22


ANNEXURE 2

COMPLIANCE MATRIX

Para Number	Headings & Sub Headings	Compliance
	CHAPTER 1- GENERAL	
1.1	Introduction	
1.2	Design, Environmental and Seaway Conditions	
1.3	Guarantee & Warranty	
1.4	Technical Documentation	
1.5	Testing / Trials and Inspection	
	CHAPTER 2- TECHNICAL REQUIREMENTS	
2.1	Function & Performance	
2.2	Applicable standards for the equipment/System	
2.3	Acceptable Limits, Tolerances, Capacity, Redundancy and Back Up Supply, Growth Margin	
2.4	Design, Construction and configuration, mounting Arrangements	
2.5	Interface definition and protocol	
2.6	Space, Weight and Size	
2.7	Physical and material characteristics, surface coating, painting	
2.8	Maintainability, Availability, Reliability	
2.9	Operation Cycle, Operational Life	
2.10	Electrical Requirements	


	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	20 of 22

Para Number	Headings & Sub Headings	Compliance
2.11	Noise and Vibration & Shock Standards	
2.12	EMI/EMC	
2.13	Quality Assurance Plan	
2.14	Safety/Lifting Arrangements, Tally & Diagram Plates	
2.15	Spares (OBS & B&D), Special Tools and Test Equipment, Accessories	
2.16	Product Support	
2.17	Training	
	CHAPTER 3 - SCOPE OF SUPPLY	
3.1	Scope of supply	
	CHAPTER 4 - MISCELLANEOUS	
4.1	Preservation & Packaging/Transportation/ Special provisions for storage	
4.2	Inspection	
4.3	Requirement of Service Engineer for Design efforts, Installation, commissioning, HATs	
4.4	Installation and Commissioning Spares	
4.5	Compliance Matrix	

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	21 of 22

COMPLIANCE MATRIX

Para Number	Headings & Sub Headings	Compliance
	CHAPTER 1- GENERAL	
1.1	Introduction	Yes Complied
1.2	Design, Environmental and Seaway Conditions	Yes Complied
1.3	Guarantee & Warranty	Yes Complied
1.4	Technical Documentation	Yes Complied
1.5	Testing / Trials and Inspection	Yes Complied
	CHAPTER - TECHNICAL REQUIREMENTS	
2.1	Function & Performance	Yes Complied
2.2	Applicable standards for the equipment/System	Yes Complied
2.3	Acceptable Limits, Tolerances, Capacity, Redundancy and Back Up Supply, Growth Margin	Yes Complied
2.4	Design, Construction and configuration, mounting Arrangements	Yes Complied
2.5	Interface definition and protocol	Yes Complied
2.6	Space, Weight and Size	Yes Complied
2.7	Physical and material characteristics, surface coating, painting	Yes Complied
2.8	Maintainability, Availability, Reliability	Yes Complied
2.9	Operation Cycle, Operational Life	Yes Complied
2.10	Electrical Requirements	Yes Complied
2.11	Noise and Vibration & Shock Standards	Yes Complied

	MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. of India Undertaking) Dockyard Road, Mumbai - 400 010.	DESIGN OUTFIT	P.A. NO.	TM
			REV. NO.	0
		YD 12651-12654	DATE	18.11.2025
			PAGE	22 of 22

Para Number	Headings & Sub Headings	Compliance
2.12	EMI/EMC	Yes Complied
2.13	Quality Assurance Plan	Yes Complied
2.14	Safety/Lifting Arrangements/Tally & Diagram Plates	Yes Complied
2.15	Spares (OBS & B&D), Special Tools and Test Equipment, Accessories	Yes Complied
2.16	Product Support	Yes Complied
2.17	Training	Yes Complied
	CHAPTER 3 - SCOPE OF SUPPLY	
3.1	Scope of supply	Yes Complied
	CHAPTER 4 - MISCELLANEOUS	
4.1	Preservation & Packaging/Transportation/ Special provisions for storage	Yes Complied
4.2	Inspection	Yes Complied
4.3	Requirement of Service Engineer for Design efforts, Installation, commissioning, HATs & SATs:	Yes Complied
4.4	Installation and Commissioning Spares	Yes Complied
4.5	Compliance Matrix	Yes Complied