



**MANOHAR PARRIKAR INSTITUTE FOR  
DEFENCE STUDIES AND ANALYSES**  
**मनोहर पर्रिकर रक्षा अध्ययन एवं विश्लेषण संस्थान**

No 1 Development Enclave, Rao Tula Ram Marg, Delhi Cantt, New Delhi – 110 010

Ph. No., 26717983-7305

Email: [gavasthi.idsa@nic.in](mailto:gavasthi.idsa@nic.in)

F.No.MP- IDSA/EM/CCTV -4/2025-25.

Date: 09.12.2025

**E-TENDER NOTICE FOR “Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System”**

**(IN TWO BID SYSTEM)**

Online bids are invited under two bid system from experienced contractors / agencies for Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System at MP-IDSA premises located at No. 1 Development Enclave, Rao Tula Ram Marg, Delhi Cantt, New Delhi -110 010 as per details given in formats. The bids should remain valid up to 90 days from the last date of submission of bids.

Detailed Tender Documents are available online from the date of tender publication at GEM, [www.idsa.in](http://www.idsa.in) and <https://www.eprocure.gov.in>. The interested bidders are advised to register themselves with e-procurement Portal GEM to participate in the e-Tender. The bidders should download and then upload duly signed tender form and their bids along with scanned copies of all the relevant certificates, documents etc. in support of their technical bids and financial bids on the GEM platform latest by 31<sup>st</sup> December 2025 by 1500 hrs. Hard copies of the relevant documents also to be submitted along with (1) Demand Draft for Rs. 35000/- (Rupees Thirty Five Fifteen Thousand only) in favour of “MP-IDSA” payable at New Delhi as Earnest Money Deposit and (2) all documents signed and stamped, which shall be submitted in sealed cover addressed to the **Assistant Director, Manohar Parrikar Institute for Defence Studies and Analyses**, may be sent at the Institute’s address mentioned above either by Speed Post / By hand delivery at Tender Box kept at the reception office, should

reach on or before **1500 hrs, 31<sup>st</sup> December 2025** duly mentioning on top right hand corner of the sealed envelope "**EMD and other supporting documents for "Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System"**" All the tenders are to be submitted on the prescribed forms, as enclosed, duly signed, stamped and dated on each page of tender and Annexures as their unconditional and explicit concurrence to the terms and conditions laid down by the Institute.

**The online financial bids shall only be opened for technically qualified firms** in presence of the bidders or their authorized representative, not more than one person, may be present at the time of opening of the bids, if they desire. IDSA reserves the right to accept or reject any or all quotations including the lowest bidder without assigning any reason at its sole discretion and the decision of the IDSA will be final and binding to all concerned.

**Critical Dates of Tender:**

(i) Publish Date & Time	09/12/2025, 10:00 hrs
(ii) Document Download Start Date & Time	09/12/2025, 10:30 hrs
(iii) Bid Submission Start Date & Time	09/12/2025, 11:00 hrs
<b>(iv) Pre Bid Meeting</b>	<b>19/12/2025, 14.30 hrs</b>
(v) Bid Submission End Date & Time	31/12/2025, 15:00 hrs
(vi) Offline submission, EMD, and other supporting documents	31/12/2025, 15:00 hrs
(vii) Bid Opening Date & Time	31/12/2025, 15:30 hrs
(viii) Cost of Tender	Free of cost

**Note : Contractor may inspect the Campus & assess its requirement before bidding the tender. Bidders are also advised to go through e-tendering process on GEM .**

**Corrigendum / addendum / modification to this tender, if any, will be notified through GEM website only .**

Col Chetan Gurbax ( Retd)  
Assistant Director, (Admin)

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**Manohar Parrikar**  
**INSTITUTE FOR DEFENCE STUDIES AND ANALYSES**  
**NOTICE INVITING TENDER**

**SCHEDULE**

S.No.	Activity Description	Schedule
1.	Tender Enquiry No	IDSA/EM/CCTV-Phase-4/2025-26
2.	Sale of Tender Document	Tender is free of cost. Though bidder needs to register themselves with online portal of GEM
3.	Time and last date of depositing Tender/Bid	31 <sup>st</sup> December 25 up to 15.00 Hrs
4.	Time and date of Opening of Technical Bid	31 <sup>st</sup> December 2025 at 15:30 hrs
5.	Time and date of Opening of Financial Bid	The Financial bid will be opened after evaluation of technical bid, which will be announced later.
6.	Minimum Validity of Tender Offer	90 days from the date of Opening of tender.
7.	Services to be offered	Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System
8.	Estimated Cost of Tender	Rs. 16.98 Lakhs /-Inclusive of GST

9.	Amount of EMD to be Deposited	Rs. 35,000/- (Exempted for MSME/NSIC or equivalent)
10.	Cost of Tender Document	Rs. Free of cost

Important Notes:

1. MP-IDSA reserves the right to accept / reject any/all tenders in part/full without assigning any reason thereof.
2. Any Addendum/Corrigendum date extension in respect of above tender shall be issued on our website [www.idsa.in](http://www.idsa.in) and online portal **of GEM , only** and no separate notification shall be issued . Bidders are therefore requested to regularly visit our website to keep them updated.
3. Bidders are advised to Visit the site and understand the site Conditions and **Compatibility with existing system**. No Excuse shall be entertained in this regard at later stage.



Col Chetan Gurbax ( Retd)  
Assistant Director, (Admin)

## **INSTRUCTIONS TO THE BIDDERS**

The tender shall be submitted in accordance with these instructions and any tender not confirming the instructions as under is liable to be rejected. These instructions shall form the part of the tender and contract.

The firms fulfilling the following criteria, may BID ONLINE their tenders FOR THE WORK ““Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System ””

1. The tender shall be finalized in two separate event with technical bid and Financial bid . The financial bid shall be opened of only those bidders who are technically qualified
2. The intending bidder, in case of Original Equipment Manufacturers shall submit a self-declaration on their letter-head, along with the tender documents, confirming that they are regular in manufacturing, supplying, installing, testing and commissioning of the similar equipment from last 2 years.
3. The intending bidder, in case of Authorized Distributor/ Authorized Dealer shall possess valid authorized Distributorship /Dealership license from Original Equipment manufacturers. The bidder shall enclose the copy of the same in the bid while submitting the tender.
4. The equipment shall be in compliance to the specifications mentioned in Annexure – I of the tender and shall be of the latest technology, best quality and high standards. The tenderer should enclose the product catalogue supporting the specifications mentioned in Annexure – I.
5. No extra payment shall be paid on account of any discrepancy in nomenclature of items.
6. While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected. If any bidder stipulates any condition of his own, such conditional tender is liable to be rejected.

7. MP-IDSA, reserves the right to reject any tender/bid wholly or partly without assigning any reason.
8. The Committee constituted by the Institute shall have the right to verify the particular furnished by bidder independently. Those technically qualified bids will only be considered for price evaluation (Financial bid). Price should not be quoted with technical bid; otherwise the tender will be rejected without any correspondence. Decision of the Assistant Director (admin) on the eligibility for qualifying technical bids shall be final and no representation shall be considered in this regard.
11. Bidder shall take into account all costs including installation, testing and commissioning, cartage etc. for giving delivery of material at site i.e. MP-IDSA, New Delhi before quoting the rates. No claim for any extra payment for any reason shall be entertained in this regard. Quoted Amount shall be Inclusive of GST .
12. The supply should be delivered at our premises free of transport charges in the address given below and the contractor shall be responsible for dues damage during the transit of goods.
13. The material shall be inspected on receipt at site i.e. MP-IDSA, New Delhi and contractor shall be responsible for any damage during the transit of goods.
14. All the communication with respect to the tender shall be addressed to:

The Assistant Director ( admin) ,  
Manohar Parrikar Institute for Defence Studies and Analyses  
No. 01, Development Enclave , Rao Tularam marg,  
Delhi Cantt , New Delhi-110010

15. In the event of any dispute the legal matter shall be subjected to the jurisdiction of New Delhi Court only.

We confirm with our acceptance to the instructions from S.No.1 to 15 above.

Date:

Name, Signature and Seal of Bidder

## COMMERCIAL AND GENERAL TERMS & CONDITIONS OF THE CONTRACT

**Nature of Goods/ Equipments:** Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System

### **1. Eligibility Criteria/Pre qualification Requirement :**

<u>Sr N o</u>	<u>Paramete rs</u>	<u>General Bidders</u>	<u>MSME Bidders</u>	<u>Remarks</u>
1	Bidder should have established service center in Delhi NCR	Yes , Required	Yes , Required	Attach electricity/Water/Telephone bill . Committee to verify physically in case of doubt
2.	Experience in field on SITC of CCTV system	Minimum 3 Year Experience	One year experience is required	Attach documentary Proof
3	Turn Over	The bidder must have a average turn over of 50 lakhs PA for last three years	The bidder must have a average turn over of 15 lakhs PA for last one year	Attach P/L accounts or CA certificate
4	Completion Certificate	At least 02 completion certificate of value not less than 10 Lakhs, from any Govt /PSU,Autonomous body (During last 5 years)	One Completion certificate is required of value 10 lakhs (during last 5 years)	Attach Completion Certificate of SITC of CCTV system
5.	<u>GST No</u>	<u>Yes, Required</u>	<u>Yes Required</u>	<u>Attach GST certificate with Latest challans</u>
6	Clear Track Record	Firm to self certified that they never have been black listed/debarred from any	Firm to self certified that they never have been black listed/debarred from any	One self certified certificate on letter head

	Govt/PSU/Autonomous body	Govt/PSU/Autonomous body	

## 2. OEM Eligibility Criteria

- (i) CCTV OEM should have direct presence in India since last Five years (not as joint venture, partnership firms or through any other association). Documentary evidence such as copy of ROC to be submitted.
- (ii) Due to security reasons, products manufactured by the **adversary countries** or having their origin from those countries are not to be quoted. Declaration on OEM/Bidder letter head needs to be submitted.
- (iii) Due to security reasons, No China based (Registered in China & Hong Kong) Original Equipment Manufacturer (OEM) and No Chinese, Taiwan and Vietnam Origin products are allowed. Declaration on OEM letterhead should be submitted.
- (iv) CCTV OEM must have experience of manufacturing of CCTV Products from last 5 years in India or 10 years for non-Indian OEM. The OEM of CCTV Equipment should be in surveillance business for at least 5(Five) years as of 31st March 2022 and should have valid factory license .
- (v) **MANUFACTURER AUTHORISATION CERTIFICATE (Annexure IV)** of camera should be produced in the name of **OEM** supplying the cameras.
- (vi) OEM should not be blacklisted or barred by any Ministry of Government of India or any of the Government / PSUs or any other government department at the time of bidding. (Annexure-VI)
- (vii) Bidder has to compulsory quote for single OEM make & model of each Camera. The bid with multiples OEM & Models for single item will be treated as non compliance & that bid will be liable for rejection for further evaluation.
- (viii) Preference to Domestic Manufacturers  
As per instructions contained in the Order's No.P-45021/2/2017-B.E.-II dated 15th June 2017 circulated/issued by Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion, Udyog Bhawan, New Delhi in pursuance of provision of Rule 153(iii) of General Financial Rule 2017, to encourage "Make in India" and promote manufacturing and production of goods

and services in India, preference will be given to local supplier/bidder meeting the criteria prescribed in the above said order. All the instructions mentioned therein will be adhered. No representation/request of any firm(s) against the decision taken by the Deptt. in pursuance of these orders/instructions will be entertained at any stage on any ground whatsoever it is.

### **3. Scope of work / Supply:**

- a) The tenders shall be submitted as per the technical specifications as per Annexure – I
- b) Submission of the tender implies that these conditions of tender have been read by the bidders and is aware of the scope of the work/supply and the quality of the material to be supplied. The final acceptance of the tender rests with the Director General , MP- IDSA who reserves the right to accept or reject any or all tenders without assigning any reason thereof.
- c) Bidders should clearly understand the scope of work clearly which is as follows :-
  - (i) The work includes supply , Installation, testing and commissioning of all items .
  - (ii) Installation includes all type of civil work , electrical work etc .
  - (iii) It's the bidders responsibility to carry out defined work in neat and clean manner and do reconditioning wherever road cutting /concrete cutting with his resources .

### **4. Submission of Bids:**

Financial bid : Only Online bids received by MP-IDSA will be considered for opening. Bids sent through fax or email will not be considered  
Technical Bid: Envelope should subscribed Supply, installation, testing, commissioning of CCTV Camera and other accessories required for Expansion of Existing CCTV Surveillance System. Inside the envelop the Demand draft of Value of Rs 15000/- should be contained .

### **5. Validity of Tender:**

- a) The tender shall be valid for a period of 90 days from the date of opening of the tender.

- b) Bidders for any reason whatsoever, withdraws the tender after it is accepted or become unable or fails to execute the orders within stipulated delivery period, MP-IDSA shall be at liberty to cancel the order forthwith and the EMD of the tender in such a case will be forfeited by the MP-IDSA .
- c) No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained till supplies are completed.

#### **6. Offers ready stock / Subject to prior sale:**

Offers from ready stock are preferred. In case the offers are subject to prior orders, the Bidders shall indicate the period within which the ordered quantity will be supplied. The Bidders shall note that in case Bidder fails to supply within the period of delivery indicated in the said tender, penalty @ Rs 1000/-per day shall be imposed .

The successful Bidder shall, within 5 days from the date of receipt of communication of acceptance of quotes from IDSA shall intimate his acceptance of the offer. The successful Bidder shall complete supplies strictly as per the accepted delivery period.

#### **7. Price Applicability**

The price shall be firm and shall include all applicable taxes and charges. Any variation in the duties, levies etc. during the period of supplies shall be charged to the bidder account. The rates quoted shall be all inclusive,( Exclusive of GST) with the delivery, up to destination i.e. MP-IDSA, New Delhi.

#### **8. Completion :**

- a) The successful bidder shall complete the job strictly within the accepted completion period of 60 days .
- b) The Equipments shall have to be delivered and installed at MP-IDSA, New Delhi to the satisfaction of concerned Authority.
- c) The comprehensive catalogue which includes instructions for Operation, Maintenance, Trouble shooting and all other areas which are necessary for smooth functioning of equipment, shall be provided along with the equipment by the bidder.

## 9. Standards

The goods supplied under the contract shall conform to the standards mentioned in the Technical Specifications.

## 10 . Patent Rights

The Contractor shall indemnify the Purchaser against all third party actions/claims of infringement of patent, trademark or industrial design rights arising from the use of goods or any part thereof.

## 11. Performance Security

- a. Within 10 days of receipt of Letter of Intent (LOI)/LOA, the Contractor shall furnish a Performance Security/Bank Guarantee in the form of a Bank Guarantee for an amount equivalent to 10% of the contract/P.O value issued by a schedule Bank from its branch in New Delhi, in the prescribed format given in this tender. The PG should be valid for a period of 15 months or
- b. An Amount equivalent to 10% of contract value shall be deducted from the bills and will be released after 15 months from the completion date of 03 months after completion of defect liability period

## 12. Inspection and Tests

- a. The Purchaser or its representatives or ultimate client shall have the right to inspect and test the goods for their conformity to the specifications. The Purchaser may also appoint an agency for this purpose. The technical specifications shall specify what inspection and tests the Purchaser requires and where they are to be conducted, Where the Purchaser decides to conduct such tests on the premises of the Contractor, all reasonable facilities and assistance like testing instruments and other test gadgets including access to the drawings and production data shall be furnished to the Inspector free of costs. In case the tested goods fail to conform to the specifications, the Inspector may reject them and the Contractor shall either replace the rejected goods or make alteration necessary to meet the specifications requirements free of cost to the Purchaser.
- b. Notwithstanding the pre-supply tests and inspections , the material on receipts in the Purchaser's premises shall also be tested and if any

material or part thereof is found defective, the same shall be replaced free of cost to the Purchaser. If any material before it is taken over is found defective or fails to fulfill the requirements of the contract, the Inspector shall give the Contractor notice setting forth details of such defects or failures and the Contractor shall make the material good or alter the same to make it comply with the requirements of the contract and in any case within a period not exceeding 1 month of the initial report. These replacements shall be made by the Contractor, free of the all charges, at the site(s).

## **12. Warranty**

- a. The Contractor shall give warranty that goods to be supplied shall be new and free from all defects and faults in material, workmanship, and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform in full conformity with the specifications and drawings. The Contractor shall be responsible for any defects that may develop under the conditions provided by the contractor and under proper use, arising from faulty materials, design or workmanship such as corrosion of the equipment, inadequate contact protection, deficiencies in circuit design and or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect goods are faulty. This warrantee shall survive inspection or payment for, and acceptance of goods, after the goods have been taken over.
- b. If it becomes necessary for the contractor to replace or renew any defective portion/portion of the equipment under this clause, the provisions of the clause shall apply to the portion/portion of equipment's replaced or renewed. If any defect is not remedied within a reasonable time, the Purchaser may proceed to get the work done at the Contractor's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the Contractor in respect of such defects.
- c. Replacement under warranty clause shall be made by the Contractor free of all charges at site including freight, insurance and other incidental charges.
- d. The equipments offered shall confirm to the specifications as given in tender/order and shall be guaranteed against defective design, defective

quality material supplied, manufacturing defects etc., for a minimum period of 12 months from the date of supply of CCTV Camera.

- e. The Bidders have the right to offer warranty more than the period of warranty offered by manufacturer of the product for 12 months from the date of supply of CCTV Camera and this aspect would certainly be taken into consideration.

### **13. Payment:**

- a. The payment will be made through NEFT by MP-IDSA to the bank account as mentioned in the bank mandate. The bidder shall submit the documents which shall clearly indicate that the Proper Installation, Commissioning & successful Testing of Equipment are done and said document shall be duly acknowledged by the Estate Manager .
- b. Complete Payment shall be released immediately after successful Installation /completion of work.
- c. TDS and GST shall be deducted as per applicable rules

### **14. Tender Fee and Earnest Money Deposit**

#### **(EMD): Earnest Money Deposit (EMD):**

- a) The units registered with Central Purchase Organization (DGS&D), National Small Industries Corporation (NSIC) , MSME or the concerned Ministry or Department shall be exempted from the payment of Earnest Money as defined under Rule 157 of General Financial Rules (GFR), 2005. In such case, copy of the certificate showing registration with the above mentioned institutions to be enclosed along with the bid.
- b) In case the unit is not covered as above, it shall submit the offer along with the Earnest Money Deposit (EMD) for Rs. 35,000/-

An Earnest Money Deposit of Rs. 35,000/- (Rs. Ten Thousand only) in the form of demand draft drawn in favor of MP-IDSA Payable at New Delhi may be submitted, failing which their bids will not be considered valid. The amount will be refunded to unsuccessful bidder without any interest after completion of the tender process. The EMD should remain valid for a period of 90 days. MSME, Startups, NSEs are exempted to deposit EMD as per govt. guidelines .

**Note:**

The EMD will be forfeited in following cases:

- a) If the bidder fails to accept the order based on his/her offer (bid) and within the prescribed time.
- b) If the bidder fails to supply the material with specifications in compliance to as mentioned in Annexure – I.

**15. Service Facility:**

In order to ensure proper and timely after sales service, contact details with addresses of service center nearest to New Delhi , shall be provided along with the bid.

**16. Taxes:**

Contractors shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. GST shall be paid separately

**17. Change Orders**

The Purchaser may at any time by written order given to the Contractor make changes Within the general scope of the contract in any one or more of the following:-

- a) Drawings, designs or specifications where goods to be furnished under the contract are to be specifically manufactured for the Purchaser.
- b) Method of transportation or packing.
- c) Place of delivery.
- d) Services to be provided by the contractor.

If any such change causes an increase or decrease in the cost or the time required for the execution of the contractor, an equitable adjustment shall be made in the contract price or delivery schedule or both and the contract shall accordingly be amended.

**18. Sub-Letting**

The Bidder cannot assign or transfer and sub-contract its interest/ obligations under the contract without prior written permission of the Purchaser.

**19. Liquidated Damages**

- a) The date of the delivery of the goods/services stipulated in the acceptance of tender should be deemed to be the essence of the contract and the delivery must be completed not later than the dates specified therein. Extension in delivery period will not be given except in exceptional circumstances. Should, however, deliveries be made after expiry of the contract delivery period and accepted by the consignee, such deliveries will not deprive the Purchaser of the right to recover Liquidated Damages.
- b) In case the Contractor fails to supply the goods/services against the order, the same shall be procured from other Contractors at the cost and risk of the Contractor and the excess money will be recovered from any dues of the party.
- c) For late deliveries, as liquidated damages, an penalty of Rs 500/- per day shall be imposed. The Purchaser also reserves the right to cancel the order in such cases and forfeit the EMD/Performance Bank Guarantee and may also debar the Contractor for future purchases.

## **20. Arbitration**

- a) In the event of any dispute arising between Purchaser and the Contractor in any matter covered by this contract or arising directly or indirectly there from or connected or concerned with the said contract in any manner of the implementation of any terms and conditions of the said contract, the matter shall be referred to the Director General, MP-IDSA , who may himself act as sole arbitrator or may name as sole arbitrator an officer of MP-IDSA notwithstanding the fact that such officer has been directly or indirectly associated with this contract and the provisions of the Indian Arbitration Conciliation Act, 1996 shall apply to such arbitration. The contractor expressly agrees that the arbitration proceedings shall be held at New Delhi .
- b) The proceedings of arbitration shall be in English language:
- c) In case any contractor wants to take the dispute to a court of law after arbitration award as aforesaid, it is clearly understood that only courts in New Delhi shall have the Jurisdiction.

## **21. Risk Purchase**

In the event of Contractor's failure to execute the contract to the satisfaction of the purchaser, the purchaser reserves the right:

- (a) To reject any part of the Contract executed and withhold payment for such portion of the Contract till such time the defects are rectified to the satisfaction of the purchaser.

(b) To terminate the Contract by giving 2 weeks notice in writing without assigning any reason and to get the Contract executed by other agency at the risk and cost of the Contractor.

## **22. Applicable Laws**

- a) This contract shall be interpreted, construed and governed by the laws of the Republic of India and the parties hereby submit to the exclusive jurisdiction of the Court at Bangalore and to all Courts at New Delhi having jurisdiction in appeal there from. Any dispute in relation to the contract shall be submitted to the appropriate Court of the Republic of India for determination. The parties to the contract shall continue to fulfill their respective obligations under the contract during the currency of the contract pending the final decision of the Court.

## **23. Packing**

- a) The contractor shall provide packing of the goods, as required to prevent their damages or deterioration during the transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit.
- b) The equipment shall be securely boxed, crated and protected from mechanical damage, moisture etc. suitable for both storage and transit according to the nature of the material and mode of transport.

## **24. Replacement Of Defective Equipment**

- a) If any equipment or any part thereof, is found defective or fails to meet the requirements of the contract before it is accepted, IDSA shall give the Contractor a notice setting forth details of such defects or failures and the Contractor shall forthwith arrange to set right the defective equipment or replace the same by the good one to make it comply with the requirements of the contract. This in any case shall be completed within a period not exceeding one month from the date of the initial report pointing out the defects. The replacement or rectification shall be made at site by the Contractor free of cost. If the Contractor fails to do the needful within this stipulated time frame, the purchaser reserves the right to reject the equipment in full or in part and get it replaced at the cost of the Contractor.

The cost of any such replacement made by the Purchaser shall be deducted from the amount payable to the Contractor against this purchase order.

- b) If any equipment or part thereof is lost or rendered defective during transit, pending settlement of the insurance claim, fresh order shall be placed on the Contractor for such loss or defective equipment and the Contractor shall arrange to supply the same within three months of such order at the same prices and on the same general terms and conditions as mentioned in this purchase order.

## **25. Force Majeure**

- a) If any time, during the continuance of this contract, the performance in whole or in part by either party under obligation as per this contract is prevented or delayed by reasons of war or hostility, act of the public enemy, civil commotion, sabotage, fire, flood, explosion, epidemic, quarantine restrictions, strike, lockout or acts of Nature, hereinafter referred to "eventuality", provided notice of happening of any such eventuality is given by either party to the other within 21 days of the date of occurrence thereof, neither party shall be reason of such an "eventuality" be entitled to terminate this contract nor shall either party have any claim or damages against the other in respect of such non-performance or delay in performance and deliveries under the contract. The contract shall be resumed as soon as practicable after such "eventuality" has come to an end or ceased to exist. In case of any dispute, the decision of Director, NCDIR, Bengaluru, shall be final and conclusive, provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such eventuality for a period exceeding 60 days, either party may at its option, terminate the contract. Provided also that if the contract is terminated under this clause the Purchaser shall be at liberty to take over from the Contractor at a price to be fixed by the Purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and other stores in the course of manufacture which may be in the possession of the Contractor at the time of such termination, or such portion thereof as the Purchaser may deem fit except such material, as the Contractor may, with the concurrence of the Purchaser, elect to retain.

## **26. Termination for Default**

a) The Purchaser, may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the Contractor, terminate this contract in whole or in part.

- If the contractor fails to deliver any or all the goods within the time period (s) Specified in the contract, or any extension thereof granted by the Purchaser
- If the Contractor fails to perform any other obligation(s) under the contract;
- If the Contractor, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- If the Contractor, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as the Purchaser may authorize in writing) after receipt of the default notice from the Purchaser.
- On a notice period of 30 days.

For the purpose of this Clause:

- 1) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 2) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of Borrower, and includes collusive practice among Bidders(prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition".

b) In the event the Purchaser terminates the contract in whole or in part pursuant to above paragraph the Purchaser may procure, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered and the Contractor shall be liable to the Purchaser for any excess cost for such similar goods. However, the Contractor shall continue the performance of the contract to the extent not terminated.

## **27. Claims:**

- a) If the material supplied are found to be off size and shape different than those in the accepted offer and are of specifications lower than those stipulated in the accepted offer, MP-IDSA shall have the right to totally reject the goods and/or to prefer a claim for compensation for the part of goods, which are rejected.

- b) The contractor shall reimburse to MP-IDSA, the actual expenditure incurred, on such goods, within 15 (fifteen) days of its demand.
- c) The contractor shall be responsible for arranging the rejected goods to be removed at his/her cost from IDSA premises.

The contractor shall also compensate for losses, if any, sustained by MP-IDSA due to defective packing and/or wrong marking of the goods.

We confirm with our acceptance to the Commercial & General Terms & Conditions Sl. No. 1 to 27 as given above.

Date:

Name, Signature and Seal of Bidder

## ANNEXURE – I

### Technical Specifications

Technical Specifications with Compliance				
Sr. No.	Feature	Specifications	Compliance Y/N	Remarks
1	4 Megapixel IP Bullet Camera Technical Compliance			
1	Image Sensor	1/2.9" 4 Megapixel progressive CMOS		
2	Minimum Illumination	0.006 lux@F1.6 (Color, 30 IRE), 0.0006 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)		
3	RAM	128 MB		
4	ROM	128 MB		
5	Effective Pixels	2688(H) x 1520(V)		
6	Shutter Speed	Auto/Manual, 1/3~1/100000s		
7	White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/regional custom		
8	Lens	3.6mm Lens (Fixed lens)		
9	Iris Control	Fixed		
10	Gain Control (AGC)	Auto/Manual		
11	S/N Ratio	>55dB		
12	Video Compression	H.265+/H.265/H.264+/H.264		
13	Back Light Compensation	BLC / HLC / WDR(120dB)		
14	Video Streaming	Main stream: 2688 x 1520@(1~20 fps) 2560x1440(1~25/30fps) Sub stream 1: D1@(1~25/30 fps); Sub stream 2: D1@(1~25/30 fps); Sub stream 3: D1@1fps		
15	Mirror	Yes		
16	Resolution	4M(2688x1520) / 3MP(2304x1296)/1080P(1920x1080)/1.3MP(1280x960) / 720P(1280 x 720) /D1(704x 576)/ CIF(352x 288)		
17	Motion Detection	Off/ On (4 Zone, Rectangle)		
18	Privacy Mask	4 Area		
19	Audio Input / Output	1/1channel		
20	Audio Compression	G.711a/ G.711Mu/ AAC/ G.726		
21	Alarm IN/Out	1 channel IN/1 channel Out		

22	Bit Rate	H.264: 3~8192Kbps , H.265: 3~8192Kbps		
23	Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast		
24	IVS (Optional)	Tripwire, Intrusion, SMD		
25	Ethernet	RJ-45 (10/100Base-T)		
26	User/Host	20		
27	IR	IR Range of 50 Mtrs		
28	Storage	SFTP, NAS, Mirco SD card (Max. 512GB)		
29	Operating Temperature	-40 °C to +60 °C		
30	Humidity	Less than 95% RH		
31	Power Source	12 VDC/PoE (802.3at)		
32	Power Consumption	Basic: 2.3 W (12 VDC); 2.9 W (PoE); Max.: 7.2 W (12 VDC); 8.4 W (PoE) (H.265 + WDR + warm light + intelligence on)		
33	Weatherproof Standard	IP67 & IK10		
<b>2 32 Channel NVR Technical Compliance</b>				
Sr. No.	Feature	Specifications	Compliance Y/N	Remarks
1	Make & Model			
1	IP Camera Input	32 Channel		
2	User Interface	Web, Local GUI		
3	Processor	Industrial-grade processor		
4	Compression	H.265+, H.265; Smart H.264+; H.264; MJPEG		
5	AI by NVR	Face detection; face recognition; perimeter protection; SMD Plus		
6	Resolution Supported	32MP; 24MP; 16MP; 12MP; 8MP; 5MP; 4MP; 1080p; 720p; D1; CIF; QCIF or better		
7	Video Display Split	Main screen: 1/4/8/9/16/25/36 ; Sub screen: 1/4/8/9/16		
8	Video Output	2 VGA, 2 HDMI video output		
9	AI by Camera	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat		

		map		
10	Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing, AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing		
11	Perimeter Protection	NVR should perform IVS rule at backend with atleast 4 cameras wheather same IVS is available in cameras or not		
12	Face Attributes	Gender; age group; glasses; expressions; face mask; beard or better		
13	Face Database Capacity	15 face databases with 15,000 images and more		
14	Face Recognition Performance of AI by NVR	NVR should perform IVS rule at backend with atleast 2 cameras wheather same FR IVS is available in cameras or not and NVR should support face detection camera to increase face recognition capacity of NVR upto 16 cameras or more.		
15	ANPR support	8 cameras		
16	Number Plate database	It should allow to create atleast 20000 numberplate data with black and white list.		
17	Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behaviour of fan; cybersecurity exception		
18	Smart Alarm	Face detection; perimeter protection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map		
19	Audio In/ Audio Out	1 In/ 2 Out		
20	Audio Compression	G.711; PCM; G726		
21	General Alarm	Motion detection; privacy masking; local alarm		
22	Alarm In/ Alarm Out	16 In/ 8 Out		
23	SATA	8 SATA ports, up to 20TB each		
24	Backup Method	Should be available with USB and Network backup enability		
25	RAID	Should have RAID 0/1/5/6/10		
26	Protocols	HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search; Multicast; InstaOn cloud; Auto Registration, ONVIF 21.12(Profile T; Profile S; Profile G); CGI; SDK		
27	Ethernet	2 x (10/100/1000 Mbps Ethernet port, RJ-45)		

28	Operating Temperature	-10 °C to +55 °C		
29	Operating Humidity	10%–93% (RH)		
30	Storage Temperature	-20 °C to +60 °C		
31	Certification	CE, FCC, ROHS, ONVIF, BIS		
<b>3 32 Channel NVR Technical Compliance</b>				
Sr. No.	Feature	Specifications	Compliance Y/N	Remarks
	Make & Model			
1	Processor	Industrial-grade processor		
2	IP Camera Input	32 Channel		
3	Operating System	Embedded LINUX		
4	User Interface	Web, Local GUI		
5	Video Output	2 VGA:1920 × 1080, 1280 × 1024, 1280 × 720 2 HDMI:3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 Heterogeneous video source output for HDMI1 and HDMI2 Simultaneous video source output for VGA1 and HDMI1 Simultaneous video source output for VGA2 and HDMI2		
6	Video Compression	Instastream, H.265, H.264+, H.264, MJPEG		
7	Decoding Capability	AI disabled: 2 Channel 32 MP@25 fps, 2 Channel 24 MP@25 fps, 4 Channel 16 MP@30 fps, 5 Channel 12 MP@30 fps, 8 Channel 8 MP@30 fps, 10 Channel 6 MP@30 fps, 12 Channel 5 MP@30 fps, 16 Channel 4 MP@30 fps, 32 Channel 1080p@30 fps AI enabled: 1 Channel 32 MP@25 fps; 1 Channel 24 MP@25 fps; 2 Channel 16 MP@30 fps, 4 Channel 12 MP@30 fps, 6 Channel 8 MP@30 fps, 8 Channel 6 MP@30 fps, 8 Channel 5MP@30 fps, 12 Channel 4 MP@30 fps, 24 Channel 1080p@30 fps		
8	AI by NVR	Face detection, Face recognition, Perimeter protection, SMD Plus		
9	AI by Camera	Face detection, Face recognition, Video metadata (Human, Motor vehicles, Non-motor vehicles), Perimeter protection, SMD Plus, Stereo analysis, Crowd distribution,		

		People counting, ANPR, Vehicle density, Heat map		
10	IntelliCheck AI by Camera + Recorder	Max. 32 Channel, 1 combined event per Channels		
11	Resolution	32 MP, 24 MP, 16 MP, 12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 2 MP, 720p, 960p, D1, CIF, QCIF		
12	Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing, AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing		
13	Video Display Split	Main screen: 1/4/8/9/16/25/36, Sub screen: 1/4/8/9/16		
14	Perimeter Performance AI by NVR (Number of Channels)	4 Channels, 10 IVS rules for each Channel		
15	Perimeter Performance of AI by Camera (Number of Channels)	All Channels (16 targets/s)		
16	Face Attributes	Gender, Age group, Glasses, Expressions, Face mask, Beard		
17	Face Detection Performance of AI by Camera (Number of Channels)	2 Channels (up to 12 face images each Channel)		
18	Face Detection Performance of AI by Camera	16 Channels		

	(Number of Channels)			
19	Face Database Capacity	Up to 20 face databases with 20,000 images, birthday, address, credential type, credential No., countries & regions and state can be added to each face image		
20	Face Recognition Performance of AI by NVR (Number of Channels)	1. 16 Channel FD (by camera) + FR (by NVR), image stream: 16 face images/s 2. 2 Channel FD (by NVR) + FR (by NVR), video stream: 12 face images/s		
21	Face Recognition Performance of AI by Camera (Number of Channels)	16 Channels		
22	SMD Plus by NVR	8 Channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change		
23	SMD Plus by Camera	All Channels (32 targets/s)		
24	Metadata Performance of AI by Camera (Number of Channels)	8 Channels		
25	Human Atributes	Top color, Top type, Bottom color, Bottom type, Hat, Bag, age, Gender and Umbrella		
26	Motor Vehicle Atributes	License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle registration location		

27	Non-motor Vehicle Atributes	Vehicle model, Vehicle color, Number of persons, Helmet		
28	ANPR by Camera (Number of Channels)	All Channels (8 Targets/s)		
29	License Plate Database Capacity	1. Create up to 20,000 plate numbers, 2. Blocklist and allowlist		
30	Abnormality Alarm	Camera offline, Storage error, Disk full, IP conflict, MAC conflict, Login lock, Abnormal behaviour of fan, Cyber security exception		
31	Intelligent Alarm	Face detection, Perimeter protection, Face recognition, Video metadata (Human, Motor vehicles, Non-motor vehicles), SMD Plus, Stereo analysis, Crowd distribution, People counting, ANPR, Vehicle density, Heat map		
32	General Alarm	Motion detection, Local alarm, Alarm box, Camera external alarm, Network alarm, Scene changing, PIR alarm, Thermal alarm		
33	Alarm Linkage	Record, Snapshot (panoramic), Local alarm output, IPC external alarm output, Access controller, Audio, Buzzer, Log, Preset, Email		
34	Audio Input	1 Channel RCA		
35	Audio Output	2 Channel RCA		
36	Audio Compression	G.711a, G.711u, PCM, G726, AAC		
37	Disk Group	Support		
38	Alarm Input	16 Channel		
39	Alarm Output	6 Channels (1 Channel 12 V 1 A output)		
40	Hard Disk	4 SATA ports, each disk can contain up to 20 TB. This limit varies depending on the environment temperature		
41	Mul -channel Playback	Up to 16 Channels		
42	Record Mode	General, Motion detection, Intelligent, Alarm, POS		
43	Backup Method	USB device and network		
44	Playback Mode	Instant playback, General playback, Event playback, Tag playback, Smart playback (face and motion detection)		

45	Interface Ports	3(1 front USB 2.0 port, 2 rear USB 3.0 ports), 1 RS232, 1 eSATA Port, 1 RS485 (half-duplex serial communication)		
46	Protocols	HTTP, HTTPS, TCP/IP, IPv4, UDP, NTP, DHCP, DNS, SMTP, UPnP, DDNS, Alarm Server, Mul cast, P2P, Auto Registration, iSCSI, ONVIF 23.12(Profile T, Profile S, Profile G),CGI, SDK		
47	Network Mode	Mul -address mode, Load balance, Fault tolerance and other network port binding modes		
48	Smart Phone	iPhone, iPad, Android Phone		
49	Browser	Chrome, IE, Safari, Edge, Firefox		
50	Ethernet	2 (10/100/1000 Mbps Ethernet port, RJ-45)		
51	Power Supply	100–240 VAC, 50-60 Hz		
52	Power Consumption	Total output of NVR is $\leq$ 13 W (without HDD)		
53	Operating Temperature	-10 °C to +55 °C (14 °F to +131 °F)		
54	Operating Humidity	10%–93% (RH), non-condensing		
55	Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)		
56	Dimensions	440.0 mm x 415.1 mm x 70.0 mm		
57	Weight	4.74 kg (without HDD)		
4	8 Port Giga Switch			
SL. Nos.	Technical Specification		Compliance (Yes / No)	Remarks
	Make & Model			
1	Physical Specification :	The LAN switch shall be rack mountable with 8 Nos. 10/100/1000 Base-T ports with 2 Nos. SFP Ports		
2	General Specification:	The LAN switch shall be available with minimum 20 Gbps Switching Fabric.		
3		The LAN switch shall have minimum packet forwarding rate of 14.89 million packets per second at 64 byte packet length.		
4		The LAN switch shall support minimum 8K MAC addresses.		
5		There shall be 511 IGMP groups.		
6		The switch shall be able to work on both IPv4 and IPv6 (dual stack) from day one.		
7		All ports in the switch shall operate at wire-speed / line-rate.		

8	The switch shall be capable of working with AC Power Supply with a voltage varying from 170-240 Volts at 50 +/- Hz.		
9	The switch shall support 19 inch rack mounting.		
10	The LAN switch shall support IEEE 802.1Q VLAN encapsulation. Maximum 4K VLAN Groups.		
11	It shall support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors. The Switch Must Support L2PT (Layer 2 Protocol Tunneling)		
12			
13	It shall support 802.1d, 802.1p, 802.1Q, 802.1s, 802.1w, 802.1x, 802.1ab, 802.3ad.		
14	It shall support spanning-tree root guard or any other industry standard protocol to prevent other edge switches becoming the root bridge.		
15	It shall support IGMP snooping v1, v2 and v3.		
16	It shall support Link Aggregation Protocol (LACP).		
17	It shall Support 802.3ah Ethernet Link OAM for Detection of Unidirectional links and to disable them to avoid problems such as spanning tree loops and support Unidirectional Link Detection (UDLD) or equivalent.		
18	It shall be able to discover the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
19	It shall support Multicast VLAN registration.		
20	It shall support LLDP / LLDP-MED including client location information. It shall exchange link and device information in multi vendor networks.		
21	It shall support configuration rollback to replace current configuration with any saved configuration file.		
22	It shall support configurable maximum transmission unit (MTU) of up to 9000 bytes, with a maximum Ethernet frame size		

23		of 9218 bytes (Jumbo frames) for bridging on Gigabit Ethernet ports.
24		It shall support auto sensing speed on 10/100/1000 ports, auto negotiating half/full-duplex on all ports and Auto-MDIX.
25		The LAN switch shall have per-port broadcast, multicast, and unicast storm control.
26		It shall have standard 802.1p CoS and DSCP classification using marking and reclassification on a per-packet basis by source and destination IP address, source and destination MAC address, or Layer 4 TCP or UDP port number.
27	QoS Features:	There shall be eight egress queues per port to enable differentiated management of up to eight traffic types.
28		There shall be weighted round robin (WRR) or any other industry standard protocol to provide congestion avoidance.
29		There shall be strict priority queuing mechanisms.
30		Granular Rate Limiting functions to guarantee bandwidth in increments shall be as low as 64 Kbps.
31		Rate limiting support based on source and destination IP address, source and destination MAC address, Layer 4 TCP and UDP information, or any combination of these fields, using QoS ACLs (IP ACLs (IPv4 and IPv6) or MAC ACLs), class maps, and policy maps shall be available. ACL should be based on user defined packet content (Max. 6bytes length user defined).
32		There shall be support for Asynchronous data flows upstream and downstream from the end station or on the uplink using ingress policing and egress shaping.
		There shall be support for Automatic Quality of Service for easy Configuration of QoS features for critical

		applications.		
33	Network Security Features:	The LAN switch shall support IEEE 802.1x to allow dynamic, port-based security, providing user authentication.		
34		The LAN switch shall support for Admission Control features to improve the network's ability to automatically identify, prevent, and respond to security threats and also to enable the switches to collaborate with third-party solutions for security-policy compliance and enforcement before a host is permitted to access the network.		
35		It shall support port-based ACLs (PACLS) for Layer 2 interfaces to allow application of security policies on individual switch ports. It shall also support VLAN based filters.		
36		It shall support unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address. It shall support Unicast and Multicast MAC addresses and associated VLANs.		
37		It shall support unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward.		
38		It shall support IGMP filtering which shall provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port.		
39		It shall support for SSHv2, SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
40		The switch shall support 2 session of Port Mirroring based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected.		

41		It shall support RADIUS authentication to enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
42		It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network / It shall support SNMP Trap for new MAC notification.		
43		It shall support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses. This can be used to prevent attacks that attempt to poison the DHCP binding database, and to rate limit the amount of DHCP traffic that enters a switch port.		
44		It shall support DHCP Interface Tracker (Option 82) to augment a host IP address request with the switch port ID.		
45		It shall support port security to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.		
46		It shall support multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
47		It shall support BPDU Guard feature, to shut down Spanning Tree Protocol Port Fast-enabled interfaces when BPDUs are received to avoid accidental topology loops.		
48		It shall support Spanning-Tree Root Guard (STRG) to prevent edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes.		
49		<del>It shall support for up to 512 access control entries (ACEs).</del>		
50		The LAN switch shall have CLI support to provide a common user interface and command set with all routers and switches of		

		the same vendor.		
51	Management:	It shall have Remote Monitoring (RMON v1 and v2) software agent to support for enhanced traffic management, monitoring, and analysis.		
52		It shall have support for RMON groups through the use of a mirrored port, which permits traffic monitoring of a single port, a group of ports, or the entire switch from a single network analyzer or RMON probe.		
53		It shall have layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination or it shall support OAM 802.3ah.		
54		It shall support Trivial File Transfer Protocol (TFTP) and File Transfer Protocol (FTP) to reduce the cost of administering software upgrades by downloading from a centralized location.		
55		It shall support Simple Network Time Protocol/Network Timing Protocol (SNTP/NTP) to provide an accurate and consistent timestamp to all intranet switches.		
56		It shall support RMON v1 and v2 standards.		
57		It shall support SNMPv1, SNMPv2, and SNMPv3 and Telnet interface to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management.		
58		It shall support IPV6 management. ACL and QoS and IPv6 Neighbor Discovery.		
59		It Shall Support SDN Platform and have Provision to be Work Standalone or Controller Based and support Zero-Touch Provisioning (ZTP)		
60		Device should certified by FCC, CE and RoHS		
61		Device OEM must be must be ISO 9001 & 14001 Certified at the time of		

		bidding		
62		Device OEM must be Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in last 3 Quarters		
63		The proposed product must be Made in India		
5	24 Port POE Giga Switch			
SL. Nos.		Technical Specification	Compliance (Yes / No)	Remarks
1	Physical Specification :	The LAN switch shall be rack mountable with 24 Nos. 10/100/1000 Base-T ports with 4 Nos. SFP Ports		
2	General Specification:	The LAN switch shall be available with minimum 56 Gbps Gbps Switching Fabric.		
3		The LAN switch shall have minimum packet forwarding rate of 41 Mpps million packets per second at 64 byte packet length.		
4		The LAN switch shall support minimum 16K MAC addresses.		
5		There shall be 512 IGMP groups.		
6		The switch shall be able to work on both IPv4 and IPv6 (dual stack) from day one.		
7		The Lab Switch must have 24x 802.3at/af-compliant PoE+ ports with a total power supply of 384 W*.		
8		All ports in the switch shall operate at wire-speed / line-rate.		
9		The switch shall be capable of working with AC Power Supply with a voltage varying from 170-240Volts at 50 +/-2 Hz.		
10		The switch shall support 19 inch rack mounting.		
11		The LAN switch shall support IEEE 802.1Q VLAN encapsulation. Maximum 4K VLAN Groups.		
12		It shall support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
13		It shall support 802.1d, 802.1p, 802.1Q, 802.1s, 802.1w, 802.1x, 802.1ab, 802.3ad.		
14		It shall support spanning-tree root guard or any other industry standard protocol to prevent other edge switches becoming the		

	root bridge.		
15	It shall support IGMP snooping v1, v2 and v3.		
16	It shall support Link Aggregation Protocol (LACP).		
17	It shall Support 802.3ah Ethernet Link OAM for Detection of Unidirectional links and to disable them to avoid problems such as spanning tree loops		
18	It shall be able to discover the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
19	It shall support for Switch port auto recovery (err disable) to automatically re-enable a link that is disabled because of a network error.		
20	It shall support Multicast VLAN registration.		
21	It shall support LLDP / LLDP-MED including client location information. It shall exchange link and device information in multi vendor networks.		
22	It shall support configuration rollback to replace current configuration with any saved configuration file.		
23	It shall support configurable maximum transmission unit (MTU) of up to 9000 bytes, with a maximum Ethernet frame size of 9018 bytes (Jumbo frames) for bridging on Gigabit Ethernet ports.		
24	It shall support auto sensing speed on 10/100/1000 ports, auto negotiating half/full-duplex on all ports and Auto-MDIX.		
25	The LAN switch shall have per-port broadcast, multicast, and unicast storm control.		
26	It shall have standard 802.1p CoS and DSCP classification using marking and reclassification on a per-packet basis by source and destination IP address, source		

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**QoS Features:**

and destination MAC address, or Layer 4 TCP or UDP port number.

There shall be eight egress queues per port to enable differentiated management of up to eight traffic types.

There shall be weighted round robin (WRR) or any other industry standard protocol to provide congestion avoidance.

There shall be strict priority queuing mechanisms.

Granular Rate Limiting functions to guarantee bandwidth in increments shall be as low as 64 Kbps.

Rate limiting support based on source and destination IP address, source and destination MAC address, Layer 4 TCP and UDP information, or any combination of these fields, using QoS ACLs (IP ACLs (IPv4 and IPv6) or MAC ACLs), class maps, and policy maps shall be available. ACL should be based on user defined packet content (Max. 6bytes length user defined).

There shall be support for Asynchronous data flows upstream and downstream from the end station or on the uplink using ingress policing and egress shaping.

There shall be support for Automatic Quality of Service for easy configuration of QoS features for critical applications.

The LAN switch shall support IEEE 802.1x to allow dynamic, port-based security, providing user authentication.

The LAN switch shall support for Admission Control features to improve the network's ability to automatically identify, prevent, and respond to security threats and also to enable the switches to collaborate with third-party solutions for security-policy compliance and enforcement before a host is permitted to access the network.

36	<p>It shall support port-based ACLs (PACLs) for Layer 2 interfaces to allow application of security policies on individual switch ports.</p>		
37	<p>It shall support VLAN based filters.</p> <p>It shall support unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address. It shall support Unicast and Multicast MAC addresses and associated VLANs.</p>		
38	<p>It shall support unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward.</p>		
39	<p>It shall support IGMP filtering which shall provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port.</p>		
40	<p>It shall support for SSHv2, SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.</p>		
41	<p><b>Network Security Features:</b></p> <p>The switch shall support 2 session of Port Mirroring based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected.</p>		
42	<p>It shall support RADIUS authentication to enable centralized control of the switch and restrict unauthorized users from altering the configuration.</p>		
43	<p>It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network / It shall support SNMP Trap for new MAC notification.</p>		
44	<p>It shall support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses. This can be used</p>		

		to prevent attacks that attempt to poison the DHCP binding database, and to rate limit the amount of DHCP traffic that enters a switch port.		
45		It shall support DHCP Interface Tracker (Option 82) to augment a host IP address request with the switch port ID.		
46		It shall support port security to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.		
47		It shall support multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
48		It shall support BPDU Guard feature, to shut down Spanning Tree Protocol Port Fast-enabled interfaces when BPDUs are received to avoid accidental topology loops.		
49		It shall support Spanning-Tree Root Guard (STRG) to prevent edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes.		
50		It shall support up to 512 access control entries (ACEs).		
51	Management	The LAN switch shall have CLI support to provide a common user interface and command set with all routers and switches of the same vendor.		
52		It shall have Remote Monitoring (RMON v1 and v2) software agent to support for enhanced traffic management, monitoring, and analysis.		
53		It shall have support for RMON groups through the use of a mirrored port, which permits traffic monitoring of a single port, a group of ports, or the entire switch from a single network analyzer or RMON probe.		
54		It shall have layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from		

	ent:	source to destination or it shall support OAM 802.3ah.			
55		It shall support Trivial File Transfer Protocol (TFTP) and File Transfer Protocol (FTP) to reduce the cost of administering software upgrades by downloading from a centralized location.			
56		It shall support Simple Network Time Protocol/Network Timing Protocol (SNTP/NTP) to provide an accurate and consistent timestamp to all intranet switches.			
57		It shall support RMON v1 and v2 standards.			
58		It shall support SNMPv1, SNMPv2, and SNMPv3 and Telnet interface to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management.			
59		It shall support IPV6 management. ACL and QoS and IPv6 Neighbor Discovery.			
60		It shall support SDN Platform and have Provision to be Work Standalone or Controller Based and support Zero-Touch Provisioning (ZTP)			
61		Device OEM must be ISO 9001 & 14001 Certified at the time of bidding			
62		The Proposed product country of origin must be made in India			
6	<b>MEDIA CONVERTER &amp; MODULE (SFP)</b>				
SL. Nos.	<b>Technical Specification</b>			<b>Compliance (Yes / No)</b>	<b>Remarks</b>
	Make & Model				
1	Standards and Protocols	IEEE 802.3z, TCP/IP			
2	Wave Length	1310 nm			
3	Dimensions (W x D x H)	2.2*0.6*0.5 in (55.4*14.6*12.9 mm)			
4	Power Supply	3.3 V			

5	Safety & Emission	FCC, CE		
6	Cable	Single-Mode Fiber		
7	Fiber Type	9/125 $\mu$ m Single-Mode		
8	Max. Cable Length	20 KM		
9	Data Rate	1.25 Gbps		
10	Port Type	LC Duplex		
11	Environment	Operating Temperature: 0–70 °C (32–158 °F) Storage Temperature: -40–85 °C (-40–185 °F) Operating Humidity: 10–90% RH, Non-Condensing Storage Humidity: 5–90% RH, Non-Condensing		
7	Rack			
SL. Nos.	Technical Specification		Compliance (Yes / No)	Remarks
1	9U Rack	Should confirm DIN 41494 & IEC 297 standard, Load bearing capacity of 50 Kgs, have following accessories: 19" Rack, Wall mount, 500mm Depth, 1U, Universal power socket design to fit both round & flat socket with built in surge protection & overload circuit breaker, 15 and 5 AMP AC power distribution channel made of high flame retardant & insulating material, CE/ISI approved with 6 nos sockets (1 nos), Copper earthing Kit (19" copper Bar), & equipment mounting screws/hardware packets (2 nos), Fan tray with two fans (low noise, good quality, ball bearing type, 90 CFM).		

2	9U Rack	Should confirm DIN 41494 & IEC 297 standard, Load bearing capacity of 50 Kgs, have following accessories: 19" Rack, Wall mount, 600mm Depth, 1U, Universal power socket design to fit both round & flat socket with built in surge protection & overload circuit breaker, 15 and 5 AMP AC power distribution channel made of high flame retardant & insulating material, CE/ISI approved with 6 nos sockets (1 nos), Copper earthing Kit (19" copper Bar), & equipment mounting screws/hardware packets (2 nos), Fan tray with two fans (low noise, good quality, ball bearing type, 90 CFM).		
3	24U Rack	Should confirm DIN 41494 & IEC 297 standard, Load bearing capacity of 500 Kgs, Quick release locking sides, front & rear door, have following accessories: 19" mountable, 2U, Universal power socket design to fit both round & flat socket with built in surge protection & overload circuit breaker, 15 & 5 AMP AC power distribution channel made of high flame retardant & insulating material, CE/ISI approved with 6 nos sockets with individual on/off switch & light indication (3 nos), Support angles 2 pairs, 475 mm depth Equipment shelves 475((or higher) mm depth - 2 nos		
8	Signage LED Display Size 55"			
SI NO.	Features	Specifications	Compliance (Y/N)	Remarks

	Make & model		
1	Screen Size	55 Inch or Higher	
2	Panel Technology	Inplane Switching (IPS)	
3	Backlight Unit Type	Direct	
4	Native Resolution	3840x2160 (UHD)4K	
5	Brightness	500 cd/m <sup>2</sup> Typ. Or better	
6	Contrast Ratio	1100:1 or better	
7	Dynamic CR	10,00,000:1 or better	
8	Color Gamut	95% or better	
9	Color Depth	1.07 Billion Colors (10 bit (D))	
10	Surface Treatment (Haze)	28% or better	
11	In-Built Operating System	OEM Own Operating System	
12	Orientation	Portrait / Landscape	
13	Viewing Angle(H x V) in degree	178 x 178	
14	Operation (Hours / Days)	24/7 Hrs support	
15	Speaker (Built-in)	10W x 2	
16	<b>Connectivity - Input ports</b>		
17	Digital	HDMI In -3, DP In -1	
18	External Control	RS232C -1, RJ45 -1	
19	USB	USB -1	
20	Output Ports	HDMI Out, Audio Out, RS232	
21	Special features	Internal Memory 16 GB, Built-in Wi-Fi/BT, Sensor (Temperature Sensor, Auto Brightness Sensor (External IR), Acceleration (Gyro) Sensor), Local Key Operation, Local Contents Scheduling, Group Manager, USB Plug & Play, Fail Over, Image (Booting Logo Image, No Signal Image), Sync (RS- 232C Sync, Local Network Sync), PIP, PBP (4), Screen Share, Video Tag (4), Play via URL, Rotation (Screen Rotation, External Input Rotation), Gapless Playback, Tile Mode Setting (Max. 15 x 15), Setting Data Cloning, SNMP, ISM Method, Auto Set ID, Status Mailing, Control Manager,	

		Smart Energy Saving, PM Mode, Wake on LAN, Network Ready, Beacon, HDMI-CEC, SI Server Setting, webRTC, Pro:Idiom, IP Rating IP5X, Power Board Protection Coating		
22	OS	Should be OEM owned, Linux Based, EAL2 Certified, and Secure		
23	Tilt	Up to 30° degree		
24	IP Rating	IP5X		
25	Power Type	Built-in Power		
26	Power Supply	100 – 240 V, 50/60 Hz		
27	Power Consumption	130 W or less (Typical)		
28	Certificates	BIS, CB, NRTL, FCC, ISO/IEC:15408, Energy Star		
29	Accessories	Wall mount, Remote, IR remote, User manual		
30	Warranty	3 years on site comprehensive warranty		
9	<b>SOLID CABLE CATEGORY 6 UTP FR-PVC</b>			
SR. NO.		SPECIFICATION/QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)	REMARK
1		The 4 pair Unshielded Twisted Pair cable shall be UL Listed and ETL verified		
2		This cable well exceeds the requirements of ANSI/TIA-568-C.2 and ISO/IEC 11801 Class E		
3		Nominal Outer Diameter of Cable should be $5.8 \pm 0.2$ mm and Conductor Diameter 23 AWG		
4		Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. Rip Cord is must.		
5		Conductor: Solid bare Copper, Outer jacket sheath:FRPVC with UL approved CM/CMR rated cable. Jacket color: Grey		
6		Insulation Material:High Density Polyethylene (HDPE) with Insulation Diameter : $0.89 \pm 0.01$ mm		
7		Dielectric Strength of cable should be 2.5 KVDC for 2 seconds		

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)	Remarks
1	The Fiber Rackmount LIU loaded having Adapter panel fixed on drawer base frame, with Adapters and with Pigtails and assembled with splice tray as per the Loaded fiber port requirement and their applicable accessories.		
2	Suitable to mount at different positions (depth wise) on standard 1U 19 inch racks. Drawer type to pull out for easy maintenance when assembled in racks.		
10	<b>FIBER RACKMOUNT LIU LOADED DRAWER TYPE 12 PORT</b>		
8	Bending Radius :< 4X Cable Diameter at -20°C ± 1°C Pulling Force: 25.35 lbs		
9	Electrical Parameters: Insertion loss (Attenuation), NEXT, PSNEXT, ELFEXT (ACRF), PSELFEXT (PSACRF), Return Loss, ACR and PS ACR.		
10	Insertion Loss of 32.8 db/100m at 250 MHz		
11	Cable should support operating temperature from -20° to +70°C		
12	Cable support Conductor Resistance ≤ 9.38 Ω/100m Max.		
13	Mutual Capacitance of cable should be < 5.6nF/100m Max.		
14	Resistance Unbalance of cable should be 5% Max.		
15	Capacitance Unbalance of cable should Max. 330pF/100m		
16	Cable support Delay Skew: < 45 ns/100m, Operating Voltage: 72V		
17	Nominal Voltage of Propagation (NVP): 69% and Current Rating: 1.5A Max.		
18	Impedance: 100 ± 15 Ω @100 MHz. and Propagation Delay @250 MHz : 536 ns/100m		
19	ETL Verified 4-Connector Channel performance certificate		
20	RoHS Compliant		
21	Printed sequential Length Counter of each meter on Outer Jacket		
22	Category 6 UTP cables shall Supports Gigabit Ethernet (1000 base-T) verified upto 600 Mhz		

3		Cold Rolled Steel material with black powder coating		
4		Three types of cable entry holes for different size cables through cable glands, covered with rubber cable grommets/covers.		
5		Splicing of 24 fibers in each plastic fiber splicing trays with integrated cable spool design.		
6		Non removable top cover and no rear cover. Drawer type to pull out for better access of interior.		
7		As per the BOM requirement, 06/12/24 LIU Loaded with 03/06/12 (LC Duplex) adapters and 06/12/24 (LC Simplex) Pigtails on rackmount ports.		
8		As per the Loaded fiber port requirement Accessories kit consists of Cable management rings/Cable saddles, Cable glands (PG13.5, 2 nos), Splice rods, Blanking clips, Velcro ties, Cable ties, Cable inlet/outlet hole covers(2 types, 2 nos each)		
9		Cable management rings/Cable saddles can be mounted inside the rackmount, no provision to mount outside in front of the adapter panel.		
10		Suitable for storing up to 3 meter of 900 $\mu$ m tight buffered fiber pigtail per adapter.		
11		Panel Dimensions : 482 x 220 x 44.3 mm (Length x Width x Height)		
12		Splice Tray Dimensions : 220 x 90 x 15 mm (Length x Width x Height)		
13		Port identification numbers printed on the Adapter panel		
14		Standards: Comply as per ANSI/TIA-568-C.3, ISO/IEC 11801, RoHS Compliant.		
15		Operating Temperature : -20 $^{\circ}$ C to +70 $^{\circ}$ C Installation Temperature : -20 $^{\circ}$ C to +70 $^{\circ}$ C		
11	<b>DUPLEX FIBER PATCHCORD SINGLEMODE</b>			
SR.N O.		SPECIFICATION/QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)	REMARK
1		Fiber optic patch cord with two core (Duplex) fiber cable terminated with		

		LC connector at one end and LC connector at other end		
2		The terminated connectors in assemblies are designed and are compatible with industry standards (ANSI/TIA-568-C.3, ISO/IEC 11801).		
3		Have good geometrical characteristics of apex offset & radius of curvature & fiber height		
4		100% factory terminated and tested for optical characteristics & fiber end face finish.		
5		Fiber type G. 652D standard. OS2 (9/125 $\mu$ m),		
6		Buffer Diameter : $0.9 \pm 0.05$ mm, Jacket Thickness : $0.35 \pm 0.05$ mm, Strength Member as Aramid yarn		
7		Cable Diameter : $2.0 \times 3.8 \pm 0.2$ (Duplex)		
8		Jacket color : Yellow, Jacket Material : LSZH, Length : 3, 5, 10, 15, 20Mtr		
9		Connector Ferrule : Ceramic, Apex Offset should be <50um, Fiber height should be $\pm 100$ nm		
10		Connector Repeatability $\leq 0.2$ dB with 1,000 times mating cycles.		
11		Connector cable retention : 50 N (11.24 lbs), Crush resistance : 100N/100mm, Bend Radius: 20xDiameter of cable		
12		Attenuation : $\leq 0.36$ dB/km (@1310 nm), $\leq 0.25$ dB/km (@1550 nm)		
13		Chromatic Dispersion : $\leq 3.5$ ps/nm.km (@1285 - 1330 nm), $\leq 18$ ps/nm.km (@1550 nm)		
14		Zero Dispersion Wavelength : 1300 - 1324 nm		
15		Cut-off Wavelength : $\leq 1260$ nm		
16		Mode Field Diameter : $9.2 \pm 0.4$ $\mu$ m (@1310 nm), $10.4 \pm 0.5$ $\mu$ m (@1550 nm)		
17		Insertion Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : $\leq 0.3$ dB Return Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : $\geq 50$ dB		
18		Insertion Loss (@1310 &1550nm) : SM (APC) Type : SC/LC/ST/FC : $\leq 0.3$ dB Return Loss (@1310 &1550nm) : SM (APC) Type : SC/LC/ST/FC : $\geq 60$ dB		
19		Traceability sticker available for product tracking and Interferometry report need to submit		

20		Standards: IEC 60332-1, ANSI/TIA-568-C.3, ISO/IEC 11801 RoHS Compliant		
21		Installation Temperature : -20 °C to +70° C, Operating Temperature : -20 °C to +70° C		
12	<b>SINGLEMODE UNITUBE ARMOURED 6 CORE FIBER CABLE</b>			
SR.N O.		<b>SPECIFICATION / QUALITATIVE REQUIREMENT</b>	<b>COMPLIANC E (YES/NO)</b>	<b>REMARK</b>
1		06 Core, Singlemode 9/125 micron primary coated buffers, 10G Ethernet OS2, Armoured Loose Tube, ECCS (Electrolytic Chrome Coated Steel) Tape, Jelly Filled Loose Tube.		
2		Two Steel Wires/Rods embedded in outer periphery of the jacket as strength members. UV Stabilised jacket and protected from Rodent attacks		
3		Complying to ANSI/TIA-568-C.3, ISO/IEC 11801, Telecordia GR-20 Core, ITU-T REC G.652D, IEC 60793-1/60794-1, EN 50173, RoHS Compliant		
4		Suitable for use in indoor/outdoor ducts, direct burial and backbone cabling		
5		Loose tube material : Polybutylene Terephthalate (PBT) with Natural/White Colour having Inner Diameter/Outer Diameter $1.7/2.5 \pm 0.1$ mm		
6		Peripheral strength member as two steel wires/rods having dimensions as $0.6 \pm 0.05$ mm		
7		Moisture Barrier as Water Swellable Tape, Armouring $\geq 0.150$ mm (ECCS Tape), Number of Ripcords as 01 no polyester based yarns.		
8		Outer sheath material as HDPE/LSZH with diameter as $7.5/8.5 \pm 0.5$ mm having thickness of 1.5mm nominal		

9	Weight of the cable for 04/06/08/12 core (HDPE/LSZH): 65.0/75.0 ± 10 kg/km, for 24 core (HDPE/LSZH): 75.0/95.0 ± 5 kg/km		
10	Fiber colour and Loose tube colour as per ANSI/TIA standards.		
11	Tensile Strength : 1000 N, Crush Resistance : 4000 N/100mm		
12	Minimum bend radius : 20 x Diameter (during installation), Minimum bend radius : 10 x Diameter (during full load)		
13	Fiber Type : G. 652D (OS2)		
14	Attenuation : ≤ 0.38 dB/km (@1310 nm), ≤ 0.25 dB/km (@1550 nm)		
15	Chromatic Dispersion : ≤ 3.5 ps/nm.km (@1285 - 1330 nm), ≤ 18 ps/nm.km (@1550 nm)		
16	Zero Dispersion Wavelength : 1300 - 1324 nm		
17	Zero Dispersion Slope : ≤ 0.092 ps/nm².km		
18	Polarisation Mode Dispersion : ≤ 0.2 ps/Vkm		
19	Cut-off Wavelength : ≤ 1260 nm		
20	Mode Field Diameter : 9.2 ± 0.4 μm (@1310 nm), 10.4 ± 0.4 μm (@1550 nm)		
21	Core Cladding Concentricity Error : ≤ 0.8 μm		
22	Cladding Diameter : 125 ± 1 μm, Coating Diameter : 245 ± 10 μm		
23	Cladding Non-circularity : ≤ 1 %		
24	Installation Temperature : -20 °C to +70° C, Operating Temperature : -20 °C to +60° C		
25	Cable Size and Standard Length: 4F to 12F : 4.0 kms ± 10%, 24F : 2.0 kms ± 10%		
13	<b>RJ 45 CONNECTOR</b>		
SR.#	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)	REMARK
1	RJ-45 modular plugs for Local Area Network (LAN) and computer Applications, Suitable for Cat 6 Solid or Stranded cable, 3-Prong Design for accurate termination		
2	Current Rating : 250V AC max, at 2A		
3	Dielectric withstanding : 1000V DC/min, <0.5A		
4	Insulation Resistance : >500MΩ, 1000V DC/min.		
5	Contact Resistance : <20 MΩ		
6	Cable to plug tensile strength: 20lbs(89N)min		
7	Durability : above 750 mating cycles		
8	Temperature for operation : -40°C to +125°C		
9	Housing material : Polycarbonate UL94V-0		
10	Gold plating thickness : Gold flash 3MU"		
11	RoHS compliant		

### Armored Cat-6 cable

Features		Minimum required parameters
1. General features		High ACR value
		Low bit Error rates
		Electromagnetic Compatibility
		Minimum radiation effect
		Maximum Noise Immunity
		04 Twisted Pairs
		Compliant with standard ISO/IEC 11801, 02 <sup>nd</sup> ED, EN 50173-1
2. Outer diameter		7.5mm or lesser
3. Conductor diameter		0.573 mm( Awg)
4. Conductor type		23AWG bare annealed copper
5. Jacket material		PVC
6. Colour		Blue/Red/Grey

### Power Cables

Sr No	Features	Minimum required Parameters
1.	Cable Type	Copper
2.	Voltage Rating	Upto 1000V
3.	Size	2.5 sq mm
4.	Construction	Annealed bare electrolytic grade copper conductor as per IS : 8130/84
5.	Primary Insulation	Extruded PVC Compound as per IS 5831A 0.9mm nominal thickness
6.	Application	Outdoor

### Fiber optic Cable

Sr No	Features	Minimum Required Parameters
1.	Cable Type	Armored Loose Tube Jelly filled (multi tube), rodent resistant
2.	Fiber Type	Single Mode , 09/125, 250 micron Primary coated buffers
3.	No of cores	12
4.	Armoring	Corrugated steel Tape Armor
5.	Certifications	UL

**ANNEXURE - II**  
**AGREED TERMS AND CONDITIONS**

**Important Notes:**

- (A) This questionnaire (ATC) duly filled-in the same word file must be submitted along with the offer, failing which your offer will be liable for rejection. This document received in any other form will not be accepted and can lead to rejection of offer.
- (B) Each point must be confirmed / replied suitably.
- (C) Bidders to note that the confirmation/acceptance/comments mentioned/agreed by them in this ATC are final and will supersede any contrary term indicated elsewhere in their quotation / tender documents.

**IDSA Tender No: IDSA/CCTV -2/2019-20.**

S. No.	Description/Tender Requirement	Vendor's Reply
<b>Vendor Compliance to Technical Conditions</b>		
1.	<b>Confirm</b> that the offer has been submitted strictly as per the tender requirements.	
2.	<b>Confirm</b> that all pages of "Technical Specifications" have been submitted with the technical bid as a token of acceptance	
3.	<b>Confirm</b> that all the documents related to "Technical Criteria for acceptance of offer" have been submitted with the technical bid.	
4.	<b>Confirm</b> that there is no technical deviation and specification of offered product is same as per tender specification	
<b>Vendor Compliance to Commercial Conditions</b>		
1.	<b>Confirm</b> that you are a OEM OR Authorized dealer of CCTV Cameras. In case of authorized dealer of CCTV Camera submit authorization letter along with your bid	
2.	<b>Confirm</b> that the quoted prices are in Indian Rupees	
3.	Confirm that the Prices shall be FIRM and FIXED till complete execution of order and shall not be subject to variation on any account.	
4.	<b>Confirm unconditionally</b> that your quotation is valid for acceptance up to 1 year from the closing date of this enquiry	
5.	<b>Please note</b> that Packaging & Forwarding charges or any other charges should be included in Price Bid. The total price of all items put together will be considered for price evaluation. (Except GST)	

6.	<p><b>Please confirm</b> that your firm have not been banned or delisted by any Government or Quasi Government agencies or PSUs. This does not necessarily be the cause for disqualification. <b>However if this declaration is not furnished the bid may be rejected as non-responsive</b></p>	
7.	<p>If your response to point no. 6 above is “Banned/Delisted”, please provide details of such banning / delisting such as (i) Banned / Delisted by ..... (Name of Co.) and (ii) Validity of such delisting / banning.</p>	
8.	<p><b>Confirm unconditional acceptance</b> that any bidder making a false claim would have its contract terminated forthwith, if detected later.</p>	
9.	<p><b>Confirm that</b> you shall supply the requisite operation/maintenance manual with the equipment.</p>	
10.	<p><b>Please also confirm</b> that spare parts shall be made available as and when required for a minimum period of 3 years from the date of successful completion of warranty period.</p>	
11.	<p><b>Confirm unconditional acceptance</b> Confirm unconditional acceptance of comprehensive warranty (inclusive of absolutely free of charge delivery (all expenses paid) at our site and installation of replacement parts/spares and free of all expenses related to such service calls) for a period of clear 12 months or more from the date of satisfactory completion of onsite installation, commissioning and training at our location</p>	
12	<p><b>Confirm</b> whether your firm is registered with any of the following in order to avail the benefits/preference available vide Public Procurement Policy MSEs Order, 2012.</p> <ol style="list-style-type: none"> <li>District Industries Centers (DIC)</li> <li>Khadi and Village Industries Commission (KVIC)</li> <li>Khadi and Village Industries Board</li> <li>Coir Board</li> <li>National Small Industries Corporation (NSIC)</li> <li>Directorate of Handicraft and Handloom</li> </ol> <p>Any other body specified by Ministry of MSME If Yes, then please mention</p>	

	<p><b>with whom your firm is registered with as MSE and the proof for the same may be attached</b></p>	
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### **Annexure - III**

### List of Govt. Organizations / Dept.

**List of Government Organizations for whom the Bidder has undertaken such work during last three years (must be supported with work orders)**

**Name of application specialist/ Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.**

**Signature of Bidder**

Name: \_\_\_\_\_

## ANNEXURE – IV

### MANUFACTURERS AUTHORIZATION CERTIFICATE

Ref No : .....  
.....

Dated :

To,  
The Estate Manager, IDSA

Reference: Tender No. ..... dated  
\_\_\_\_\_ due on  
\_\_\_\_\_

Dear Sir,

We \_\_\_\_\_ the Manufacturers of  
\_\_\_\_\_ having manufacturing unit  
at \_\_\_\_\_

(Address of  
the

factory) do hereby authorize M/s. \_\_\_\_\_  
(Name and  
Address of dealer) to submit a bid, and subsequently negotiate and sign the  
contract with you against the above tender.

We hereby extend our full guarantee, warranty and support and also in meeting  
warranty obligations by providing necessary spares in time for the goods &  
services offered by the above dealer against this tender.

Yours faithfully

(Name)  
(Name of the manufacturer)

Note: This letter of authority should be on the letterhead of the manufacturer  
and should be signed by a person competent and having a power of attorney to  
bind the manufacturer. The bidder in its bid should include it.

**ANNEXURE – V**

**DECLARATION**

I/We having our office as mentioned below and declare that I/we have never been blacklisted by any State Government/Central Government or any State/Central PSU/Autonomous Body

Signature :

Name :

Designation :

Name of the  
Agency :

Address of the  
bidder :

Date:

Place:

## **ANNEXURE – VI**

### **TURN OVER DETAILS**

As per the tender eligibility criteria, the average sales turn-over should not be less than Rs.50 Lakhs per annum in the past three years. These turnover details will have to be substantiated with the appropriate documentary evidences duly enclosed. In case of MSME, one year sales should not be less than 15 Lakhs

The last two years sales turn-over details are furnished as follows.

Name of the Company / Firm:

Sr No	Financial Year	Turn Over
1	2022-23	
2	2024-24	
3	2024-25	

1. Please Furnish previous 3 year's audited Balance sheet, Profit & loss account in support of your claim .

2. Also attach Income tax return of Last 3 years .

**Financial Bid**  
 (Quoted Amount shall be Inclusive of GST)

**Annexure-VIII**

**Item wise Quantities (Details)**

(Bidders should refer to Technical specification mentioned in Annexure-I)

SL Nos.	Description	UOM	Qty	Unit Price	Amount
1	Supply of 4MP Full HD IP IR Network Bullet Camera	Nos.	24		
2	Supply of 32 Ch NVR with 4 Sata Port HDD Slot	Nos.	1		
3	Supply of Network Video Recorder (Embedded) 32 Channel Video Input 4K Support ,H.265/H.264, Stream Encryption, 8 SATA HDD Port, with RAID Supported	Nos.	1		
4	Supply of 8 TB Surveillance HDD	Nos.	6		
5	Supply of L2 Managable Switch rack mountable with 24 Nos. 10/100/1000 Base-T POE ports with 4 Nos. SFP Ports	Nos.	2		
6	Supply of L2 LAN switch rack mountable with 8 Nos. 10/100/1000 Base-T ports with 2 Nos. SFP Ports	Nos.	2		
7	Supply of SFP module	Nos.	4		
8	Supply of 19" Rack, Wall mount, 500mm Depth, 9U Height, Front Glass Door (lockable toughened 4mm) with all accessories	Nos.	2		
9	Supply of 19" Rack, Wall mount, 600mm Depth, 9U Height, Front Glass Door (lockable toughened 4mm) with all accessories	Nos.	1		
10	Supply of 19" Rack, Floor Standing, 800mm, Depth, 24U Height, Front Glass Door (lockable toughened4mm) with all accessories	Nos.	1		
11	Supply of Junction Box Outdoor Pole Mount Suitable to Accommodate CCTV Accessories	Nos.	3		
12	Supply of Small Indoor/Outdoor Enclosing Box	Nos.	24		
13	Supply of Base24 CLD POE Switch	Nos.	1		
14	Supply of Tree 8 CLD POE Switch	Nos.	3		
15	Supply of 55" LFD Display	Nos.	1		
16	Supply of Cat 6 UTP Cable (305 mtr)	Nos.	5		
17	Supply of 6 Core SM Fiber Cable	Mtr.	300		
18	Supply of 12 core Loaded SM LIU with Accessories	Nos.	2		
19	Supply of 24 port Loaded patch Panel	Nos.	2		
20	Supply of Cat 6 Patch cord 1 mtr	Nos.	26		
21	Supply of SM Duplex Fiber Patch Cord 2 mtr	Nos.	2		
22	Supply of RJ 45 Connector (100 Nos.)	Pkt	1		
23	Supply of 25mm PVC Conduit with accessories	Mtr.	750		
24	Supply of 25mm HDPE Pipe	Mtr.	300		
25	Supply of 3 Core 1.5 sqmm Power Cable	Mtr.	90		
26	Supply of 20mm PVC Flexible pipe	Mtr.	60		
27	Installation testing & commissioning of all above equipment with laying of HDPE & conduit with cat 6 & power cable cabling	Job	1		

