



**ZOOLOGICAL GARDEN  
Alipore, Kolkata 700027**

**e-NIT No. 03/ZGA/E-tender/2025 , date: 30.01.2026**

**Supply, installation and replacement of CCTV system for surveillance of Animal Enclosures and different areas at Zoological garden Alipore.**

**List of Works:**

Sl	Name of the work (1)	Amount of Earnest Money to be deposited (Rs.) (3)	Period of Completion (4)	Name of the Concerned Officer (5)	Eligibility of Contractor (6)
1	<b>Supply, installation and replacement of CCTV system for surveillance of Animal Enclosures and different areas at Zoological garden Alipore.</b>	43,164.00	30 (thirty) days	Director Zoological Garden, Alipore	Eligibility Criteria as per serial No. 1 mentioned below)

Intending bidders may download the tender documents from the website <https://wbtenders.gov.in> directly with the help of Digital Signature Certificate.

**1. Qualification Criteria:- The self attested, photocopies of following document are to be submitted online by the intending bidders in the Technical bid folder:-**

Sl. no.	Items
1.	NIT
2.	EMD
3.	PT Deposit receipt Challan for the current year
4.	GST registration Certificate and latest GST return of the last month
5.	I.T.R Acknowledgement latest receipt
6.	PAN Card
7.	Trade license
8.	Experience Profile {List of completed projects of similar nature in last 3(three) years}
9.	OEM (Original Equipment Manufacturer) certificate
10.	Bidder's Annual Turn Over should be at least 50% of the amount put to tender in the last 3 financial years
11.	Profit and loss balance sheet for last 3 financial years (Audited).
12.	AFFIDAVIT-Y

2. Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website <https://wbtenders.gov.in> Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No. 05. Technical bid will accompany the above **mentioned documents, photocopy of EMD receipt, cost of tender documents & earnest money and special terms & conditions**.
3. **The FINANCIAL OFFER** of the prospective Bidder will be considered only if the TECHNICAL BID of the Bidder is found qualified by the 'Tender Evaluation Committee' formed by the Director, ZGA. The decision of the 'Tender Evaluation Committee' will be final and absolute in this respect. The list of Qualified Bidders will be displayed in the website.
4. Bid shall remain valid for a period of not less than 180 (one Eighty) days from the last date of submission of Financial Bid / Sealed Bid. If the bidder withdraws the bid during the validity period of bid, the earnest money as deposited will be forfeited forthwith without assigning any reason thereof.

## 5. Date and Time Schedule:

Sl. No.	Particulars	Date
1	Date of uploading of N.I.T. & other Documents (online)	31.01.2026 & 10.00 Hrs.
2	Documents download/ submission start date (Online)	31.01.2026 & 10.00 Hrs.
3	Bid Submission closing date (On line)	13.02.2026 & 17.00 Hrs.
4	Bid opening date for Technical Proposals (Online)	16.02.2026 & 17.00 Hrs.
5	Bid opening date for Financial Proposals (Online)	The date and time of financial bid opening will be announced after Technical bid evaluation

## 6. Earnest Money: Payment procedure:

### Payment by Net Banking (any listed bank) through ICICI Bank Payment Gateway:

On selection of net banking as the payment mode, the bidder will be directed to ICICI Bank Payment Gateway webpage (along with a string containing a Unique ID) where he will select the Bank through which he wants to do the transaction. Bidder will make the payment after entering his Unique ID and password of the bank to process the transaction.

Bidder will receive a confirmation message regarding success/failure of the transaction. If the transaction is successful, the amount paid by the bidder will get credited in the respective Pooling account of the State Government /PSU/Autonomous Body/Local Body/PRIs, etc maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees.

If the transaction is failure, the bidder will again try for payment by going back to the first step.

### Payment through RTGS/NEFT:

(i) On selection of RTGS/NEFT as the payment mode, the e-Procurement portal will show a pre-filled challan having the details to process RTGS/NEFT transaction.

(ii) The bidder will print the challan and use the pre-filled information to make RTGS/NEFT payment using his Bank account.

Once payment is made, the bidder will come back to the e-Procurement portal after expiry of a reasonable time to enable the NEFT/RTGS process to complete, in order to verify the payment made and continue the bidding process.

(iii) If verification is successful, the fund will get credited to the respective Pooling account of the State Government/PSU/ Autonomous Body/Local Body/PRIs, etc maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees.

(iv) Hereafter, the bidder will go to e-Procurement portal for submission of his bid. But if the payment verification is unsuccessful, the amount will be returned to the bidder's account.

#### **Refund/Settlement Process:**

I. After opening of the bids and technical evaluation of the same by the tender inviting authority through electronic processing in the e-Procurement portal of the State Government, the tender inviting authority will declare the status of the bids as successful or unsuccessful which will be made available, along with the details of the unsuccessful bidders, to ICICI Bank by the e-Procurement portal through web services.

II. On receipt of the information from the e-Procurement portal, the Bank will refund, through an automated process, the EMD of the bidders disqualified at the technical evaluation to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of bid is uploaded to the e-Procurement portal by the tender inviting authority.

III. Once the financial bid evaluation is electronically processed in the e-Procurement portal, EMD of the technically qualified bidders other than that of the L1 and L2 bidders will be refunded, through an automated process, to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of financial bid is uploaded to the e-Procurement portal by the tender inviting authority. However, the L2 bidder should not be rejected till the LOI process is successful.

IV. If the L1 bidder accepts the LOI and the same is processed electronically in the e-Procurement portal, EMD of the L2 bidder will be refunded through an automated process, to his bank account from which he made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on Award of Contract (AOC) to the L1 bidder is uploaded to the e-Procurement portal by the tender inviting authority.

V. As soon as the L1 bidder is awarded the contract (AOC) and the same is processed electronically in the e-Procurement portal EMD of the L1 bidder for tenders of State Government offices will automatically get transferred from the pooling account to the State Government deposit head "8443 00-103-001-07" through GRIPS along with the bank particulars of the L1 bidder.

EMD of the L1 bidder for tenders of the State PSUs/Autonomous Bodies/Local Bodies/PRIIs, etc will automatically get transferred from the pooling account to their respective linked bank accounts along with the bank particulars of the L1 bidder. In both the above cases, such transfer will take place within T+1 Bank Working Days where T will mean the date on which the Award of Contract (AOC) is issued.

The Bank will share the details of the GRN No. generated on successful entry in GRIPS with the E-Procurement portal for updation.

Once the EMD of the L1 bidder is transferred in the manner mentioned above, Tender fees, if any, deposited by the bidders will be transferred electronically from the pooling account to the Government revenue receipt head "0070-60-800-013-27" through GRIPS for Government tenders and to the respective linked bank accounts for State PSU/Autonomous Body/Local Body/PRIIs, etc tenders.

All refunds will be made mandatorily to the Bank A/c from which the payment of EMD & Tender Fees (if any) were initiated.

There is no exemption of any kind for any of the eligible contractors towards cost of tender document fee or EMD.

**7. Security Deposit: Security Deposit:** The successful Tenderee to whom a Letter Of Acceptance has been issued shall submit within 10(ten) days from the date of Letter of Acceptance, **Security Deposit which is 10% (inclusive 2% of EMD)** of the contracted value of the work as per the G.O.NO. 201-F(Y), dt. 18/01/2021 this shall have to be deposited by NEFT/RTGS. In case of written request from the L1 bidder justified with sufficient reason, provision may be made for deduction of security deposit from Progressive/R.A. Bills. Refund of the Security Deposit Money and Additional Performance Security is subject to fulfillment of conditions and defect liability period as per G.O. No. 5784-PW/L&A/2M-

**8.Additional Performance Security:**

When the bid rate is 80% or less of the Estimate put to tender then an Additional Performance Security in the form of Bank Guarantee to be submitted as per Memo No. 796-F(Y) Dated: 25.02.2022 from Finance Department, Audit Branch. **The Bank Manager of the bank issuing Bank Guarantee to submit in the prescribed format as mentioned Annexure-A in the NIT alone will be accepted. Non-submission of the prescribed Bank Guarantee in the prescribed format is the sufficient reason to reject the bidder and no further bid will be entertained, whatsoever, the case may be.**

9. The Bidder, at his own responsibility and risk is encouraged to visit and examine the place and materials to be supplied and obtain all information's that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction, the cost of visiting the place shall be at his own expense. The bidder may bid all of the 3 subgroup or any one /two sub group

10. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the garden authority. The tender accepting authority of Zoological Garden reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any cost that might have been incurred by any Tenderer at the stage of Bidding.

**11. Conditional / Incomplete tender will not be accepted under any circumstances.**

**12. The intending tenderers are required to quote the rate *online*.**

**13. The intending tenderers have to deposit sample of items (non-perishable) in office before opening of tender.**

14. During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.

15. The Director, Zoological Garden, Alipore reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained. The volume of specific item may change based on actual requirement of the zoo.

16. If there be any objection regarding prequalifying the Agency that should be lodged on line to the Chairman of Tender Evaluation Committee within 2 (*two*) days from the date of publication of list of qualified agencies and beyond that time schedule no objection will be entertained by the Tender Evaluation Committee.

17. Before issuance of the WORK ORDER, the tender inviting authority may verify the credential and other documents of the lowest tenderer if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances without any reference to the lowest tenderer.

18. If any discrepancy arises between two similar clauses on different notification, the clause as stated in later notification will supersede former one in following sequence:

i )N.I.T.

ii) Terms & Conditions

- iii) Technical Bid
- iv) Financial Bid

**19. Qualification criteria:**

The tender inviting and Accepting Authority through a “Tender Evaluation Committee” will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria regarding:

- a) Financial Capacity
- b) Experience / Credential & others eligibilities mentioned above

The eligibility of a bidder will be ascertained on the basis of the document(s) in support of the minimum criteria as mentioned in above .If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any notice.

**20. Escalation of Price on any ground and consequent cost overrun shall not be entertained under any circumstances. Rates should be quoted accordingly.**

21. No. price preference and other concession will be allowed.

**22. Mandatory engagement of Job Card holders:**

Wherever applicable, As per the Gazette Notification No. 1140 PRD-33011/1/20-24-MGNERJSEC Dated: 07.03.2024, Job Card holders shall mandatory be engaged in the works where rural unskilled worker can be engaged. The agency executing the works shall also furnish a certificate after completion of works that only Job Card holder were engaged for unskilled works during execution.

Sd/-  
**Director**  
**Zoological Garden, Alipore**

# **ZOOLOGICAL GARDEN, ALIPORE**

## **SECTION - A**

### **INSTRUCTION TO BIDDERS**

#### **General guidance for e-Tendering:**

Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering. Registration of Contractor:

Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to (the web portal of ZGA the contractor is to click on the link for e- Tendering site as given on the web portal.

#### **Digital Signature certificate (DSC):**

Each contractor is required to obtain a Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in Clause A.1. above. DSC is given as a USB e-Token.

The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website mentioned in Clause A.1. using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

#### **Submission of Tenders:**

Tenders are to be submitted through online to the website stated in Clause A.1. in two folders at a time for work, one in Technical Proposal & the other is Financial Proposal before the prescribed date &time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

#### **Technical Proposal:**

The Technical proposal should contain scanned copies of the following in one covers (folders).

#### **(a). Statutory Cover Containing the following documents:**

##### **1) EMD AND OTHER DOCUMENTS:**

a) Photocopy of NEFT/RTGS towards Earnest Money (EMD) as prescribed in the N.I.T. against the work in favour of **Zoological Garden, Alipore**.

##### **b) N.I.T.**

*(NIT & Tender Document downloaded properly and upload the same Digitally Signed). The rate will be quoted in the B.O.Q. Quoted rate will be encrypted in the B.O.Q. under Financial Bid. 0.*

N.B.: Failure of submission of any of the above mentioned documents as stated in Sl. No. A.5.(a). and Sl. No. A.5.(b). will render the tenderer liable to be rejected.

#### **Tender Evaluation Committee (TEC)**

Evaluation Committee constituted by the Director, Zoological Garden, Alipore will function as Head of Evaluation Committee for selection of technically qualified contractors.

## **Opening & evaluation of tender:**

### **Opening of Technical Bid:**

Technical proposals will be opened by the Concerned Tender Inviting Authority or his authorized representative electronically from the website using their Digital Signature Certificate (DSC).

Cover (folder) for Statutory Documents (Ref. Sl. No. A.5.(a)&(b.) will be opened first . If there is any deficiency in the Statutory Documents the tender will summarily be rejected. Decrypted (transformed into readable formats) documents of the statutory cover will be downloaded & handed over to the Tender Evaluation Committee.

Summary list of technically qualified tenderers will be uploaded online. Pursuant to scrutiny & decision of the Tender Evaluation Committee the summary list of eligible tenderers & the serial number of work for which their proposal will be considered will be uploaded in the web portals.

During evaluation the committee may summon the tenderers & seek clarification / information or additional documents or original hard copy of any of the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

### **Financial Bid**

The financial bid should contain the following documents in one cover (folder) i.e. Item of Quantities (BOQ). The contractor is to quote the rate (own rate) online through computer in the space marked for quoting rate in the BOQ.

Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.

### **Penalty for suppression / distortion of facts:**

If any tenderer fails to produce the original hard copies of the documents like Completion Certificates and any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant Act.

### **Rejection of Bid:**

Tendering authority reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Tendering authority's action.

### **Award of Contract**

The Bidder whose Bid has been accepted will be notified by the Tender Inviting Authority through acceptance letter / Letter of Acceptance.

The notification of award will constitute the formation of the Contract.

The Agreement will incorporate all agreements between the Tender Inviting Authority and the successful bidder. All the tender documents including N.I.T. & B.O.Q. will be the part of the contract documents.

**ANNEXURE – B**  
**Zoological Garden,Alipore**  
2,Alipore Road,Kolkata-700027

**Terms and Conditions**

1. e-Tender should submit on or before the mentioned date published on the tender notice.
2. The tenderers will have to produce original documents to prove their past experience, capabilities and financial resources to do such type of business and up to date Trade License, Current Income Tax Return & P. Tax Challan after opening of Technical Bids to the Tender Committee of the Zoological Garden, Alipore
3. Tender is submitted in the approved system for the ingredients in the accompanying Group of the tender.
4. The tender will be opened by the tender committee, Zoological Garden, Alipore at the place and time to be notified in the office Notice Board and Websites.
5. The final acceptance of the tender is subject to the approval of the Director, Zoological Garden, Alipore
6. The Director, Zoological Garden, Alipore is not bound to accept the lowest or any tender.
7. The Director, Zoological Garden, Alipore can accept any tender either wholly (as per group) or for one or more ingredients only.
8. The successful tenderer shall have to execute an Agreement of contract and deposit security money for the due performance of the work within a week from the date of receipt of the letter of acceptance. This security deposit will be refunded in accordance with terms of the contract upon certifying satisfactory completion/performance of the work by the competent authority.
9. The successful tenderer shall have to furnish up to date Trade License, GST & Income Tax Return &**credential** soon after signing the contract but before any payment is received. In case of failure to do so the payment of the bills will be kept held up and if found necessary the contract will be terminated and security money is to be forfeited.
10. The contract shall not be assigned or subject to sold even in part. Sub contract now allowed
11. The Director, Zoological Garden, Alipore reserves the right of accepting the tender wither wholly or partly or rejecting any tender without assigning any reason.
12. Canvassing in any form whether direct or implied will be a disqualification.
13. Any other conditions appearing in the notice for the tenders will also be binding on the tenderers.
14. Payment terms (After satisfactory completion of the work).
15. Liability and indemnity clauses.
16. The vendor office should be within 17 km from the site.

## Special Term and Condition:

<b>CCTV OEM Criteria for Qualification</b>	
1	OEM company for Camera & NVR should have its own company registered in India (under Incorporation of Companies Act, 1956/ 2013) since last 5 year. Any representation through a Dealer/ Distributor/ Subsidiary/ consortium shall not be treated as OEM. This has to be supported by necessary statutory documents. CCTV OEM should have manufacturing in India. (Documentary evidence should be submitted).
2	The Camera OEMs own manufacturing process/facility should be ISO 9001, ISO 14001, ISO 27001, ISO 45001 certified and have manufacturing facility in India. Copy of Valid ISO, & manufacturing facility where proposed camera models being manufactured to be submitted.
3	The bidder/agency shall ensure that all the cameras supplied must be certified with Latest BIS-ER/must be mentioning OEM own factory address in India not any third party or JV manufacturing unit. Bidder/agency shall have enclosed the relevant certificate.
4	The Media Access Control (MAC) address of all the proposed equipment must be registered in the name of OEM only.
5	The bidder/agency shall ensure that all the OEMs equipment shall have 3 years warranty and are not likely to be declared end of sale within 3 years from the date of supply. The bidder shall submit an undertaking from OEMs on letter head in this regard with their bid along with declaration regarding their authorized Service Centre in India.
6	The bidder/agency shall ensure that all quoted product OEM or any of or its promoter(s) / director(s) should not have been blacklisted by any government department/PSU/Banks/Govt. agencies in India. Declaration from the letterhead of OEM shall be submitted by the agencies.
7	The camera OEM should be a genuine manufacturer and should comply with HEVC H.265 and be listed on HEVC website on bid submission date.
8	CCTV Camera OEM should be fulltime member of ONVIF (All the certifications & Credentials should be valid on the date of Bidding).
9	OEM should not have been 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.
10	OEM should have valid EPR (Extended Producer Responsibility License/ Authorization No. from Central Pollution Control Board for Electrical & Electronic Equipment E-Waste. OEM need to submit its certificate with technical bid.
11	The tender specific OEM certificate for the offered items should have to be furnished.
12	The bidders have to submit OEM Authorization Letter mentioning Quotation Reference No. in the Authorization Letter, otherwise offer will not be considered and same will be rejected.
13	All camera should have STQC ( Standardization Testing and Quality Certification) and need to submit STQC certificate at the time of Bidding

## **AFFIDAVIT – “Y”**

(To be furnished in Non Judicial Stamp paper of appropriate value duly notarized)

- 1) I, the under-signed do certify that all the statements made in the attached documents are true and correct. I have all machineries as per NIT & all will be at site during entire period of work. In case of any information submitted proved to be false or concealed, the application may be rejected and no objection/claim will be raised by the under-signed.
- 2) The under-signed also hereby certifies that neither our firm M/S..... nor any of constituent partner had been debarred to participate in tender by the any Government Department during the last 3 (three) years prior to the date of this N.I.T. I/We have presently.....nos of works in my hand & I would finish the work in time.
- 3) The under-signed would authorize and request any Bank, person, Firm or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Department to verify this statement.
- 4) The under-signed understands that further qualifying information may be requested and agrees to furnish any such information at the request of the Department.
- 5) Certified that I have applied certified that I have applied in the tender in the capacity of individual/ as a partner of a firm/authorized representative of company or society and I will not handover the job to any other person except my employee to supervise.

Signed by an authorized officer of the firm.

Title of the officer

Name of the Firm with

Seal Date:

**BOQ for Supply and installation of CCTV system for surveillance of Animal Enclosures and different area at Zoological Garden Alipore**

SL.No.	Description of Items	Qty.
1	Supply and Installation of 64 Channel Network Video Recorder (NVR) with 8-HDD slot (Make :HIKVISION, AXIS, BOSCH, PELCO or equivalent )	1
2	Supply and Installation of 6 TB Surveillance HDD (Make :SEAGATE, WD, TOSHIBA or equivalent)	27
3	Supply of 2 MP Smart Hybrid Light Fixed Bullet AudioTurret Network Camera (Make :HIKVISION, AXIS, BOSCH, PELCO,PRAMA or equivalent)	50
4	Supply of 2 MP Smart Hybrid Light Fixed Dome AudioTurret Network Camera (Make :HIKVISION, AXIS, BOSCH, PELCO,PRAMA or equivalent)	32
5	Supply and Installation of Poe Switch 16 Port10/100/ Mbps Switch with 2 SFP (Make ::HIKVISION,D-Link, Cisco, Allied Telesis or equivalent )	2
6	Supply and Installation of Giga Poe Switch 08 Port10/100/ Mbps Switch with 1 SFP (Make ::HIKVISION,D-Link, Cisco, Allied Telesis or equivalent )	10
7	Supply and Installation of Giga Poe Switch 04 Port10/100/ Mbps Switch (Make ::HIKVISION,D-Link, Cisco, Allied Telesis or equivalent )	5
8	Supply of Lan Cable CAT 6 (Make :D-Link, Finolex, Commscopeor equivalent)	2850
9	Supply of Lan Cable CAT 6 Outdoor (Make :D-Link, Finolex, Commscope or equivalent )	305
10	Supply of 6 Core Fiber (Make :D-Link, Finolex, Commscope or equivalent. )	600
11	Supply of 1.5 sqmm 2 core copper Power cable ( Make: Finolex, Mascab, Polycab or equivalent )	350
12	Cctv Cable Laying cable laying with use of PVC pipe/flexible pipe/socket/screw and other hardware	4105
13	Cctv Cable Laying cable laying Under Ground Road Cutting use of PVC pipe/flexible pipe/socket/screw and other hardware	50
14	Supply and Installation of Outdoor (370X550X450)mm GI Junction Box with Power Board	2
15	Supply and Installation of Outdoor (350X400X350)mm GI Junction Box with Power Board	5
16	Supply and Installation of Indoor Enclosure	7
17	Supply and Installation of Media Convter (Make : D-link, Cisco, Syrotech or equivalent)	10
18	Supply and Installation of SFP Modular (Make : D-link, Cisco, Syrotech or equivalent)	10
19	Supply and Installation of 6U Network Rack (Make : D-link, Cisco, Syrotech,Netgear or equivalent)	1
20	Supply and Installation of Iron Pole 9 Ft	6
21	Supply and Installation of Iron Pole 5 Ft	6
22	Supply and Installation of FiberPital	10
23	Supply and Installation of TGB Box	10
24	Splicing Charge	10
25	Supply of Camera Outdoor Box	82
26	Extra Accessories ( viz: Nut, Bolts, Clamps, Ties, RJ45 Conn., etc )	1
27	Installation Charge of Camera	64

**The following are the technical parameters of 2MP Network Dual Light Dome Camera with 30mtrs IR Range**

Sl No	Feature	Specification
1	Image Sensor	1/2.7 inch Progressive Scan CMOS
2	Max. Resolution	1920 × 1080
3	Shutter Time	1/3 s to 1/100,000 s
4	Min. Illumination	Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0 Lux with IR
5	Day & Night	IR cut filter
6	Iris Type	Fixed
7	Supplement Light Type	IR, White Light
8	Supplement Light Range	IR: up to 30 m
9	Video Streams	Should Support Triple Configurable Streams
10	Main Stream	25 fps @ 1920 × 1080, 1280 × 720
11	Sub-Stream	25 fps @ 640 × 480, 640 × 360
12	Video Compression	H.265/H.264
13	Environment Noise Filtering	Yes
14	Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC
15	Security	Password protection, complicated password, HTTPS encryption, watermark, digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTSP over HTTPS, security audit log, TLS
16	Simultaneous Live View	Up to 6 channels
17	Integration	ONVIF (Profile S, Profile T, Profile M)
18	Protocols	TCP/IP, UDP, Multicast, NTP, DDNS, SNMP, QoS, DHCP, IPv4, IPv6, DNS, HTTP, HTTPS, RTSP, SRTP/RTSPS, Bonjour, NAT, RTCP, UPnP, ONVIF, SSH, SMTP, ARP
19	User/Host	Up to 32 users
20	Wide Dynamic Range (WDR)	120 dB
21	Day/Night Switch	Day, Night, Auto, Schedule
22	Image Enhancement	BLC, HLC, 3D DNR
23	Privacy Mask	4 programmable polygon privacy masks
24	Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
25	Built-in Microphone	Yes
26	IVS	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception, Line crossing detection, intrusion detection
27	Power	12 VDC ± 25%, PoE: IEEE 802.3af/at
28	Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
29	Protection	IP67
Camera & NVR should be from same OEM for smooth integration.		

<b>The following are the technical parameters of 2MP Network Dual Light Bullet Camera with 30mtrs IR Range</b>		
<b>Sl No</b>	<b>Feature</b>	<b>Specification</b>
1	Image Sensor	1/2.7 inch Progressive Scan CMOS
2	Max. Resolution	1920 × 1080
3	Shutter Time	1/3 s to 1/100,000 s
4	Min. Illumination	Color: 0.005 Lux @ (F1.6, AGC ON), B/W: 0 Lux with IR
5	Day & Night	IR cut filter
6	Iris Type	Fixed
7	Supplement Light Type	IR, White Light
8	Supplement Light Range	IR: up to 30 m
9	Video Streams	Should Support Triple Configurable Streams
10	Main Stream	25 fps @ 1920 × 1080, 1280 × 720
11	Sub-Stream	25 fps @ 640 × 480, 640 × 360
12	Video Compression	H.265/H.264
13	Environment Noise Filtering	Yes
14	Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC
15	Security	Password protection, complicated password, HTTPS encryption, watermark, digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTSP over HTTPS, security audit log, TLS
16	Simultaneous Live View	Up to 6 channels
17	Integration	ONVIF (Profile S, Profile T, Profile M)
18	Protocols	TCP/IP, UDP, Multicast, NTP, DDNS, SNMP, QoS, DHCP, IPv4, IPv6, DNS, HTTP, HTTPS, RTSP, SRTP/RTSPS, Bonjour, NAT, RTCP, UPnP, ONVIF, SSH, SMTP, ARP
19	User/Host	Up to 32 users
20	Wide Dynamic Range (WDR)	120 dB
21	Day/Night Switch	Day, Night, Auto, Schedule
22	Image Enhancement	BLC, HLC, 3D DNR
23	Privacy Mask	4 programmable polygon privacy masks
24	Ethernet Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port
25	Built-in Microphone	Yes
26	IVS	Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception, Line crossing detection, intrusion detection
27	Power	12 VDC ± 25%, PoE: IEEE 802.3af/at
28	Startup and Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing)
29	Protection	IP67
Camera & NVR should be from same OEM for smooth integration.		

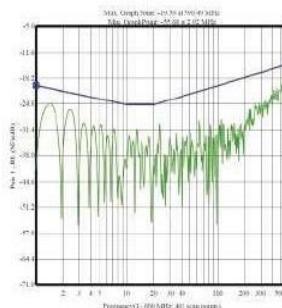
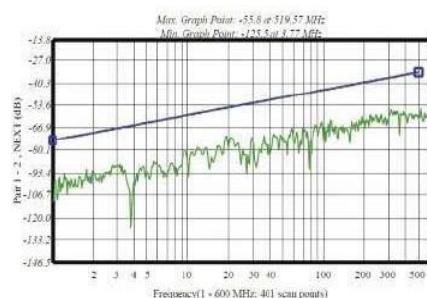
## 64 Channel Network Video Recorder (NVR) with 8-HDD slot

Sl No	Feature	Specification
1	Operating system	Embedded Linux
2	IP video input	64-channel IP Video input
3	Two-way audio	should support
4	Incoming bandwidth	Min. 400 Mbps
5	Outgoing bandwidth	Min. 400 Mbps
6	Display interface	2 x HDMI , 2 x VGA
7	HDMI-1	8K (7680 × 4320)/30Hz, 4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
8	HDMI-2	4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
9	VGA Output	2-ch, 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
10	Audio output	2-ch, RCA (2.0 Vp-p , 1 KΩ)
11	Split-Screen display	it should support multi split-screen live view on connected monitor.
12	Recording resolution	32 MP/ 24 MP/ 12 MP/ 8 MP/ 7 MP/ 6 MP/ 5 MP/ 4 MP/ 3MP/ 1080p/ UXGA/ 720p/ VGA/ 4CIF/ DCIF/ 2CIF/ CIF/ QCIF
13	Decoding format	H.265/H.264/MPEG4
14	Synchronous playback	16-channel
15	Smart Search option	Yes
16	Motion Detection	Yes
17	IVS features	Supports special cameras, including people counting camera, ANPR (automatic number plate recognition) camera, and heatmap.
18	RAID function	RAID0, RAID1, RAID5, RAID6, RAID10 and N+M Hotspare .
19	SATA interface for HDD	should support 8 x SATA interfaces
20	HDD Capacity	16 TB capacity for each HDD or better
21	eSATA	1 eSATA interface
22	Network interface	2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interfaces
23	USB interface	atleast 2 × USB 2.0; 2 × USB 3.0
24	Serial interface	RS-485 (full-duplex), RS-232, Keyboard
25	Alarm in/out	atleast 16 input / 9 output
26	Power supply	100 to 240 VAC, 50 to 60 Hz ( Redundant Power )
27	Consumption (without hard disk)	≤50 W
28	Working temperature	-10 to +55°C (14 to 131°F)
29	Working humidity	10 to 90 %
30	Certification	CE, FCC, BIS
Camera & NVR should be from same OEM for smooth integration.		

# CCTV CABLE Cat 6 Cable

## ◆ TRANSMISSION CHARACTERISTICS PER 100M

Frequency MHz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5
500	45.3	15.2	33.8	31.8	13.8	10.8	4.5	2.8
600	51	14.5	31.2	29.9	11.8	8.6	3.5	2.1



## ◆ MECHANICAL PROPERTIES

Bending Radius: < 25.4mm at  $-20^{\circ}\text{C} \pm 1^{\circ}\text{C}$

Pulling Force: 11.5 Kg

Operating Temperature Range:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

Storage Temperature Range:  $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$

## ◆ CONNECTION SYSTEM

Compatible with all common systems according to  
TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

## ◆ PACKING

Reels of guaranteed 305m Length

## ◆ ORDERING INFORMATION

Part Code	Description
NCB-C6UGRYR-305	CAT6 UTP 23AWG Solid: 305M

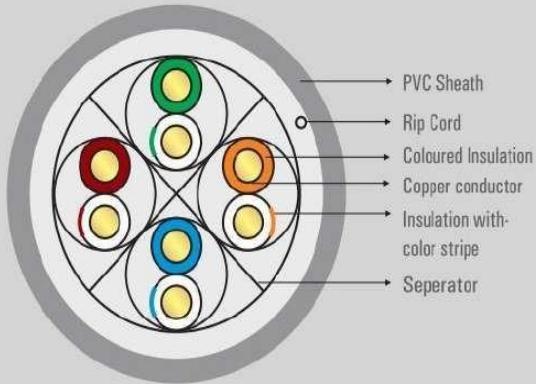
## CCTV CABLE Cat 6 Cable

### APPLICATION

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Performance verified up to 600 MHz

This cable well exceeds the requirements of ANSI/TIA-568-C.2 category6 ISO 11801 Class E

Approval: UL Listed  & ETL Verified



### CONSTRUCTION

Conductor:	23 AWG Solid bare Copper (4 pair)
Insulation:	High Density Polyethylene
Pairs:	2 Insulated conductors twisted together
Sheath:	FR-PVC Insulation thickness 0.2mm nominal
Cable Diameter:	6.1 mm nominal
Cable wt per Box:	13.6 Kgs nominal
Printing:	Each meter printed with sequential Length Counter

### ◆ ELECTRICAL PROPERTIES

Characteristic Impedance:	$100 \pm 15\Omega$
Conductor Resistance:	$\leq 9.38 \Omega /100m$
Insulation Resistance:	$100M \Omega$
Mutual Capacitance:	$< 5.6nF/100m$
Resistance Unbalance:	5% Max
Capacitance Unbalance:	$330pF/100m$
Delay Skew:	$< 45nS$
NVP (%):	69%
Operating Voltage:	72V
Dielectric Strength:	1.0KV dc or 0.75KV ac for 1min

### ◆ COLOR CODE

PAIR NO	COLOR
1-2	White-Orange Stripe and Orange
4-5	White-Blue Stripe and Blue

PAIR NO	COLOR
3-6	White-Green Stripe and Green
7-8	White-Brown Stripe and Brown

## 8-Port Gigabit Unmanaged PoE Switch

PoE Port	8 × gigabit PoE ports, RJ45 port, full duplex, MDI/MDI-X adaptive
PoE standard	IEEE 802.3af IEEE 802.3at
UpLink port	1 × gigabit RJ45 port, and 1 × gigabit SFP fiber optical port
Plug-&-Play	supports plug-and-play for easy installation
Network protocol	IEEE 802.3 IEEE 802.3u IEEE 802.3x IEEE 802.3ab IEEE 802.3z
Switching Capacity	20 Gbps
Forwarding Rate	14.88 Mpps
Forwarding Mode	Store-and-forward
MAC Address Table	4K MAC address entries
PoE Power Budget	110 W
Power Supply	48 VDC, 2.5 A
Surge Protection	6KV
Working Temperature	0°C-40°C , Humidity: 10%-90% (non-condensing)

<b>Smart Managed16-Port Gigabit PoE Switch</b>	
Model	To be mentioned by the Bidder .....
OEM	To be mentioned by the Bidder .....
Port Number	16 × gigabit PoE port, and 2 × gigabit fiber optical port
PoE Port	16 × gigabit PoE port
	IEEE 802.3af IEEE 802.3at
PoE standard	
UPLink port	2 × gigabit fiber optical port
Network protocol	IEEE 802.3 IEEE 802.3u IEEE 802.3x IEEE 802.3ab, and IEEE 802.3z
Switching Capacity	36 Gbps
Forwarding Rate	26 Mpps
Forwarding Mode	
MAC Address Table	
Software Function	VLAN STP Port Isolation SNMP LLDP , QoS , Port Mirroring
PoE Power Output	225 W
SFP module	supported
Power Supply	100-240V AC, 50/60Hz
Power Consumption	250 W
Working Temperature	-10°C to 55°C (14°F to 131°F)

## Surveillance Hard Disk - 6 TB

### Key Advantages

Specifications	6TB
SkyHawk™ Health Management Included	Yes
Interface	SATA 6Gb/s
Features and Performance	
Drive Bays Supported	Up to 16
Cameras Supported	Up to 64
RV Sensors	Yes
Max. Sustained Transfer Rate OD (MB/s)	195MB/s
Cache (MB)	256
Reliability/Data Integrity	
Tarnish Resistant	Yes
Load/Unload Cycles	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15
Power-On Hours per Year (24x7)	8760
Workload Rate Limit (WRL) <sup>2</sup>	180
MTBF	1,000,000hr
Warranty, Limited (years) <sup>3</sup>	3
Power Management	
Startup Current, Typical (12V, A)	2
Average Operating Power (W)	9W
idle Average (W)	7.2W
Standby Mode/Sleep Mode, Typical (W)	0.6/0.6
Voltage Tolerance (5V)	±5%
Voltage Tolerance (12V)	±10%
Environmental/Temperature	
Operating (ambient, min °C)	5
Operating (drive case, max °C) <sup>4</sup>	70
Nonoperating (ambient, min °C)	-40
Physical	
Height (mm/in, max)	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.01in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb)	705g/1.55lb
Carton Unit Quantity	20
Cartons per Pallet/Cartons per Layer	40/8

**ImagePerfect™ firmware** is designed to ensure seamless video footage capture in 24x7 surveillance workloads<sup>1</sup> that record video from 64 HD cameras.

**SkyHawk Health Management** actively helps protect your surveillance storage by focusing on prevention, intervention, and recovery options.<sup>2</sup> Included is RAID RapidRebuild™, which provides 3x faster volume rebuilds over traditional RAID rebuilds.

**RV sensors built in** allow drives to maintain performance in multi-bay systems, giving customers the flexibility to scale their systems when more storage is needed.

**ATA streaming support** enables recordings from up to 64 HD cameras for smooth, uninterrupted footage.

**1M hours MTBF, 3-year limited warranty<sup>3</sup>** represents an improved total cost of ownership (TCO) with reduced maintenance costs.

**Lower power consumption** means a reduction in heat emissions, which improves reliability in surveillance solutions. Tarnish-resistant components help protect drive from environmental elements, increasing field reliability.

**Unparalleled data protection** with an optional 2-year Rescue Data Recovery Services plan, providing access to Seagate's secure labs with industry-leading data recovery success rates.

#### Best-Fit Applications

- Network video recorders (NVR)
- Surveillance DVRs