



E-TENDER FOR SUPPLY,
INSTALLATION, TESTING &
COMMISSIONING OF CLOSED-
CIRCUIT TELEVISION (CCTV) SYSTEM
AND BURGLAR ALARM

TENDER DOCUMENT

TENDER NO: KERALA STATE CO-OPERATIVE BANK
LTD/GAD/KERALA BANK/CCTV_BURGLAR ALARM/2026

DATED: 4TH MARCH 2026

The Kerala State Co-operative Bank Ltd.

"COBANK TOWERS", VIKAS BHAVAN,

Palayam, Thiruvananthapuram

Ph: 0471-2547208, 2547236, 2547284

GSTIN No. 32AAAK4255G2ZZ

E-mail: gad@keralabank.co.in

Web site: WWW.kerala.bank.in

The bidder shall quote for multiple districts. Bank will reserve the right to award the contract to single bidder or separately to different bidders based on the lowest quotes received as per NIT Conditions.

THE KERALA STATE CO-OPERATIVE BANK LTD

NOTICE INVITING TENDER

E-TENDER FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF CLOSED-CIRCUIT TELEVISION (CCTV) SYSTEM AND BURGLAR ALARM

**TENDER NO: Kerala State Co-operative Bank Ltd/GAD/ KERALA BANK
CCTV_BURGLAR ALARM/2026**

DATED:04/03/2026

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E-tenders are invited from reputed & reliable contractors / Firms for the Supply, Installation, Testing and Commissioning (SITC) and Annual Maintenance of CCTV systems (including various types of DVRs/NVRs, Cameras, CCTV hardwares/softwares, etc.) and various types of Security Alarm Systems / Burglar Alarm Systems (including various types of Manual switches, PIR detectors, Auto dialer System, Vibration detectors, Magnetic sensors, etc.) for Kerala Bank.

The indicated work would include Supply, Installation, Testing and Commissioning of CCTV systems and Burglar Alarm at the branches / offices of Kerala Bank in Thiruvananthapuram, Kollam, Alappuzha, Pathanamthitta and Kottayam Districts at 317 nos (approx) of branches/offices (subject to change), strictly conforming to the Bank's technical specifications and conditions specified in different parts of this tender document.

The tenderer should have experience in the respective field for a minimum period of **5 years**. The Companies/Firms which are blacklisted by the Govt./Public Sector undertakings are not eligible for participating in this Tender. Prices should be inclusive of **GST, all transportation and installation at 317** branches located at above districts.

Bid publishing date	: 15.00 hours on 04-03-2026
Tender download start date	: 10.00 hours on 05-03-2026
Prebid Meeting	: 14.30 hours on 06-03-2026
Bid Submission start date	: 11.30 hours on 07-03-2026
Bid submission closing time	: 16.00 hours on 21-03-2026
Date & time of opening of E- tender	: 15.00 hours on 23-03-2026

The Bank reserves the right to accept/reject any tender without assigning any reason whatsoever.

**04.03.2026
Thiruvananthapuram**

Sd/-
Chief Executive Officer

The Kerala State Co-operative Bank LTD.

**TENDER NO:Kerala State Co-operative Bank Ltd/GAD/ KERALA BANK
CCTV_BURGLAR ALARM/2026**

DATED:04/03/2026

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The indicated work would include Supply, Installation, Testing and Commissioning of CCTV systems and Burglar Alarm at the branches / offices of Kerala Bank in Thiruvananthapuram, Kollam, Alappuzha, Pathanamthitta and Kottayam Districts at 317 nos. (approx.) of branches/offices (subject to change), strictly conforming to the Bank's technical specifications and conditions specified in different parts of this tender document. Prices quoted should be inclusive of GST and all taxes, transportation and installation charges etc. The Bank has the liberty to cancel the entire order without any prejudice if any deviation is seen in the quality of work, equipment used and the Bank has also the right to reject the item or to impose FINE to the satisfaction of the Bank as the case may be. The penalty shall be imposed as per the penalty clause for any delay in work or annual maintenance. Tender forms can be down loaded from website www.etenders.kerala.gov.in. Cost of tender form Rs.5000/- (**Rupees Five thousand only inclusive of GST @18%**) and **EMD of Rs. 3,00,000/- (Rupees Three Lakh only)** may be remitted online through e-tender web site. The successful bidder should deposit a sum equivalent to 2.5% of the value of the contract or provide a Performance Bank Gurarantee for the amount as security for the satisfactory fulfilment of the contract.

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Seal and signature of the bidder

The Kerala State Co-operative Bank Ltd.

ADDITIONAL DOCUMENT -1

E-Tender for Supply, Installation, Testing & Commissioning of Closed-Circuit Television (CCTV) System and Burglar Alarm

**TENDER NO:Kerala State Co-operative Bank Ltd/GAD/ KERALA BANK
CCTV_BURGLAR ALARM/2026**

DATED:04/03/2026

General Tender Terms & Conditions for e-Procurement

This tender is an e-Tender and is being published online for the Supply, Installation, Testing & Commissioning of Closed-Circuit Television (CCTV) System and Burglar Alarm in 317 Branches of Kerala Bank. The tender is invited in 02 cover system from the registered and eligible firms through e-procurement portal of Government of Kerala (<https://www.etenders.kerala.gov.in>). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal. The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in.

As of now, Kerala Bank operates a network of 823 Branches. However, it may be noted that 317 Branches are currently lacking adequate CCTV Surveillance and Burglar Alarm Systems. In line with regulatory compliance requirements set by the Reserve Bank of India (RBI) and NABARD, it is strongly recommended to address this gap by implementing CCTV and Burglar Alarm systems in these 317 Branches as part of the first phase of the security upgrade as given below.

Districts where CCTV and BURGLAR ALARM to be quoted			
Sl. No.	Name of CPC	No. of Branches where CCTV to be implemented	No. of Branches where Burglar Alarm to be implemented
1	THIRUVANANTHAPURAM	78	78
2	KOLLAM	64	64
3	PATHANAMTHITTA	61	0
4	ALAPPUZHA	56	7
5	KOTTAYAM	58	0
	TOTAL	317	149

The work order will be made on District-wise basis for branches located across the above districts.

A). Online Bidder registration process: Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on

www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost. Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471-2577088/188/388 or 0484-2336006, 2332262 or 0497-2764788, 2764188 or 0483-273294 or through email: **etendershelp@kerala.gov.in** or helpetender@gmail.com for assistance in this regard.

B). Online Tender Process: The tender process shall consist of the following stages:

- i. Downloading of tender document:** Tender document will be available for free download on www.etenders.kerala.gov.in. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document.
- ii. Pre-bid meeting: Yes**
- iii. Publishing of Corrigendum:** All corrigenda shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- iv. Bid submission:** Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on www.etenders.kerala.gov.in. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.
- v. Opening of Technical Bid and Bidder short-listing:** The technical bids will be opened, evaluated and shortlisted as per the eligibility and technical qualifications. All documents in support of technical qualifications shall be submitted (online). Failure to submit the documents online will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- vi. Opening of Financial Bids:** Bids of the qualified bidder's shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in critical date's section.

C). Documents Comprising Bid:

(i). The First Stage (Pre-Qualification or Technical Cover based on 2 cover tendersystem): Pre-Qualification or Technical proposal shall contain the scanned copies of the following documents which every bidder has to upload:

- 1. Sealed and signed copy of the Tender Document, Additional Document and Notice Inviting Tender.**
- 2. Brief bidder Profile in the letter head of the firm duly sealed and signed.**
- 3. Sealed and signed copy of registration of the firm and GST Registration.**
- 4. Other documents**

- a) Terms & Conditions of Tender document.
- b) An undertaking as per Annexure – A.
- c) Submission of commercial proposal for Supply, Installation, Testing & Commissioning of Closed-Circuit Television (CCTV) System and Burglar Alarm Annexure –B
- d) Information of Vendor on the format attached as per Annexure –C
- e) Details of works executed in the last 5 years Annexure – D.
- f) Annual turnover for the last 3 years Annexure – E.
- g) Acceptance of Specifications Annexure – F.
- h) BOQ and Estimate Cost are as per Annexure – G.

The Bank doesn't take any responsibility for any technical snag or failure that might take place during document upload.

(ii).The Second Stage (Financial Cover or as per tender cover system):

The Bidder shall complete the Price bid as per format given for download along with this tender. **Note:** The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website. **Fixed price:** Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/ variable price quotation will be treated as non-responsive and rejected.

In case the date of opening of EOI is declared as a holiday, the same will be opened on the next working day at the same time. Kerala Bank has the right to accept/reject any or all Proposals without assigning any reasons.

For any queries related to the subject, kindly email gad@keralabank.co.in

D). Pre- Qualification Criteria for Bidder.

Kerala State Co-operative Bank reserves the right not to proceed with the contract or to change the terms and conditions of the contract, to alter the timetable reflected in this document or to change the process or procedure, and also reserves the right to decline or discuss the matter further with any party expressing interest.

- Bidders may apply for multiple districts.
- The bidder shall have an office / place of business within the district or nearby district to ensure prompt service and support. (Address proof and contact details shall be furnished.)
- The bidder shall have adequate technical manpower, tools, and infrastructure to execute the work satisfactorily within the stipulated time.
- The bidder shall be a proprietorship / partnership firm / LLP / company legally registered in India.
- The bidder shall ensure a maximum response time of 24 hours for attending CCTV complaints within the district.
- Proof of registration such as GST Registration / Trade License / Incorporation Certificate shall be submitted.
- The Bidder should have past satisfactory experience in Supply, Installation, Testing, Commissioning, Maintenance and Repair of sophisticated CCTV systems and Security Alarm System / Burglar Alarm System for any reputed organization.

- The technical competence will be evaluated based on the Eligibility Criteria mentioned below.
- The Bidder should fulfill all the eligibility criteria, as per the details mentioned below. Bidders, who fulfill all the Eligibility criteria, alone will be considered for further financial evaluation. The proposal failing to meet all the pre-qualification eligibility criteria below shall be disqualified and shall not be considered for the financial evaluation process. The decision of Kerala Bank shall be final in this matter and would be binding upon the bidder.

Eligibility Criteria for Bidder

Sl. No.	Criteria	Eligibility Criteria	Supporting Document
1	Legal Entity	a) The bidder should be the sole applicant and must be an entity registered in India. Must be in existence for the last 5 years as on 31st March 2025.	i) Copy of Certificate of Incorporation / Registration ii) Memorandum and Articles of Association (if applicable)
2	Annual Turnover	The Bidder should have average annual turnover of minimum INR 25 Crores for 3 consecutive audited financial years among the FY 2024-2025, 2023-2024, 2022-2023, 2021-2022, 2020-2021. The net worth of the Applicant must be positive in the provided three financial years ending on 31 st March 2025. (or last Three Years)	Applicant shall submit: Audited statement for any 3 financial years (2024-2025, 2023-2024, 2022-2023, 2021-2022, 2020-2021) last 3 years. Certificate from the Statutory auditor / Independent Chartered Accountant with seal and signature clearly specifying the annual turnover for the specified years (2024-2025, 2023-2024, 2022-2023, 2021-2022, 2020-2021).
3	Technical Capability	The bidder should have experience in executing multi-location-based CCTV projects in in a Government Institutions/PSU/Banks etc.	Copy of Work Order/agreement having the scope of work, client details and project value or Client certificate.
		The bidder should have experience in executing CCTV and Burglar Alarm/ Intrusion Alarm systems project in multiple locations in banking / government institutions/PSUs.	Copy of Work order/agreement having the scope of work, client details and project value or Client Certificate.
4	Network	The bidder should have experience in executing CCTV / Burglar	Bidder shall submit :

	Capability	Alarm systems project in multiple location in banking / government / financial institutions.	Copy of Work order, agreement having the scope of work, client certificate
5	OEM - MAF Certificate	The Applicant shall submit an MAF, Authorization Certificate from the Manufacturer (OEM) for ANPR Cameras, hardware, Software products (as indicated in their technical specification). The Applicant must submit and mention in MAF Form, comprehensive support & warranty for Three Years will be provided by OEM and the products quoted are not end-of-life for a further period of Three Years.	The Applicant shall submit: Signed copy of MAF from main OEM like CCTV/ Monitors/ANPR Cameras/ Racks /Burglar Alarm etc.
6	Technical Team	The bidder shall have a functional service office / service centre within the district where the work is proposed. Alternatively, the bidder shall have a dedicated service team permanently stationed within the district. The Bidder must have at least 5 technical resources in their rolls.	Proof of Certificate Proof of local presence such as office address, service engineer details, local contact number, electricity bill / rental agreement / declaration shall be submitted.
7	Black Listing	The Bidder must not be blacklisted/ debarred by any Central / State Government / Public Sector Unit (PSU)/any Government organization in India at the time of bid submission or before awarding the work.	Applicants shall submit a Signed declaration as part of the technical proposal.
8	Joint Venture / Consortium	Consortium / Joint Venture will not be permitted.	The Bidder must provide the Name of Single Point of Contact (SPOC).

Note:

- All self-certifications shall be duly signed and Stamped by Authorized signatory of the Applicant Firm unless specified otherwise the Technical Proposal shall not be considered for further evaluation.
- The prospective Bidder shall enclose documentary evidence in support of the Eligibility Criteria along with Technical Proposal.
- Kerala Bank reserves the right to independently verify the documentary evidence submitted by the Applicant along with the Technical Proposal.
- Kerala Bank reserves the right to check the quality of important items from any certified government agency. If the quality is compromised, the bidder will be

asked to supply correct product and the cost of which will have to borne by the Bidder.

Pre- Qualification Criteria for OEM.

Minimum Eligibility Criteria for CCTV OEM:	
1	OEM company for Camera & NVR should have its own company registered in India (under Incorporation of Companies Act, 1956/ 2013) should be in existence since last 5 years. Any representation through a Dealer/ Distributor/ Subsidiary/ consortium shall not be treated as OEM. This must be supported by necessary statutory documents. CCTV OEM should have a manufacturing unit operational in India since last Five years. (Documentary evidence should be submitted) Certificate of Registration.
2	OEM should have a manufacturing facility established in India for 5 years to support Make in India and should be STQC Certified as per the CCTV Implementation Guidelines https://www.crsbis.in/BIS/app_srv/tdc/gl/docs/CCTV_Implementation_guidelines.pdf
3	The OEM of the Camera, Storage, NVR/ VMS Software and Network Switches should not be blacklisted or banned by any government department/organization in India/globally.
4	CCTV Camera OEM should be full time member of Open Network Video Interface Forum (ONVIF) - Proof web Link or Membership Certificate
5	The CCTV OEM should have below listed ISO Certifications for Quality, Environment, Security management and Health & safety Management system for manufacturing of all types of Cameras & NVR. All the CCTV Components (Camera, VMS, NVR, etc.) should be from same OEM for seamless integration and ease of operation. The Bidder/s shall attach the copy of the OEM's ISO Certificate along with the bid.
	> ISO 9001:2015 > ISO 14001:2015 > ISO 27001:2013 > ISO 45001:2018 > CMMI Level S
6	The Bidder(s) may propose 'Makes/Models' that are in compliance to 'Make in India' guidelines of Government of India.
7	The bidder shall quote only STQC - Certified Camera as per the guidelines issued by Government of India.
8	The OEM of the CCTV camera must have at least 100 employees on its payroll in India. Any OEM which is part of a larger group company but meeting criteria in India is also eligible. This is to justify that CCTV OEM has made an investment in India and is serious about its business in India which will ensure long-term after-sales support and spare support from the OEM. Respective document/ certificate to be provided along with the bid.
9	Any Original Equipment Manufacturer (OEM) that has a Joint Venture in India with a Chinese firm, as per the border sharing clause issued by Government of India#, shall not be eligible for this Work, proposal will be rejected. # Amendment to the Public Procurement Order - July 2020 (Based on National Security Concerns): Issued by: Ministry of Finance, Department of Expenditure.

- After completion of technical evaluation, only those bidders who have scored the requisite points or above will be considered for the opening of financial bids.
- The work will be awarded to the bidder who has **quoted the least amount in each district** and will be awarded Letter of Invitation to take up the work, if L1 fail to accept the work contract, the work will be awarded to the next bidder L2 etc. Bank reserves the right to negotiate with the L1 Bidder. The right to award the work or not will be the sole discretion of Kerala Bank.

E). Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay, a tender document fees of Rs.5000 (Rs. Five Thousand only including of GST @18%) and Earnest Money Deposit of Rs.3,00,000/- (Rupees Three Lakh only). The Bid security is required to protect the purchaser against risk of Bidder's conduct, which would warrant the forfeiture of security.

Online Payment modes: The tender document fees and EMD can be paid in the following manner through e-Payment facility provided by the e-Procurement system State Bank of India Multi Option Payment System (SBI MOPS Gateway).

During the online bid submission process, bidder shall select SBI MOPS option and the page, to view the Terms and Conditions page. On further submitting the same, the e-Procurement system will re-direct the bidder to MOPS Gateway, where two options namely SBI and Other Banks* will be shown. Here, Bidder may proceed as per below:

- a) **SBI Account Holders** shall click SBI option to with its Net Banking Facility., where bidder can enter their internet banking credentials and transfer the Tender Fee and EMD amount.
- b) **Other Bank Account Holders** may click Other Banks option to view the bank selection page. Here, bidders can select from any of the 2 Banks to proceed with its Net Banking Facility, for remitting tender payments.
- c) Any transaction charges levied while using any of the above modes of online payment has be borne by the bidder. The supplier/contractor's bid will be evaluated only if payment status against bidder is showing "**Success**" during bid opening.

***Transaction Charges** for Other Banks vide SBI Letter No. LHO/TVM/AC/2016-17/47 – 1% of transaction value subject to a minimum of Rs. 50/- and maximum of Rs. 150/- .

F). SUBMISSION PROCESS: For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and Financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and EMD. For page by page instructions on bid submission process, please visit **www.etenders.kerala.gov.in** and click "**Bidders Manual Kit**" link on the home page.

It is necessary to click on "Freeze bid" link/ icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during bid opening process.

The Kerala State Co-operative Bank LTD

GENERAL CONDITIONS

E- Tenders are invited for the supply of the items as specified in the schedule given below.

1. Tender forms can be obtained from web site www.etenders.kerala.gov.in. The cost of tender forms once paid will not be refunded. Further clarification/corrigendum in this regard, if any, will be put up only on the above site. Bidders should regularly visit the above web site to keep themselves updated.
2. The eligible bidders must have GST registration and the rates quoted must be inclusive of all taxes, duties and cesses prevailing and likely to be levied in future by the State Govt. / Central Govt.
3. The bill must contain the GSTIN No. of Kerala State Co-operative Bank Ltd and the GSTIN No. of Kerala State Co-operative Bank Ltd is **32AAAK4255G2ZZ** with address as follows The Kerala State Co-operative Bank Ltd, Head Office, COBANK Towers, Vikas Bhavan, Palayam, Thiruvananthapuram-695033.
4. Cost of tender form Rs.5000/- (Rupees Five thousand only including GST @18%) may be remitted online through e-tender web site. The cost of tender form once paid will not be refunded.
5. **If any bidder withdraws from his tender before the expiry of the period fixed for keeping the rates firm for acceptance, the earnest money if any, deposited by him will be forfeited to Bank or such action taken against him as Bank think fit.**
6. The final acceptance of the tenders rests entirely with the Bank who do not bind themselves to accept the lowest or any tender. But the tenderers on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.
7. Communication of acceptance of the tender normally constitutes a concluded contract. Nevertheless, the successful bidder shall also execute an agreement, for the due fulfilment of the contract within the period to be specified in the letter of acceptance. The contractor shall have to pay all stamp duty, lawyer's charges and other expenses incidental to the execution of the agreement.

WHERE AS THE FIRM has represented to the Bank that the firm has necessary technical expertise and infrastructures including trained Technician & Engineers, Equipment etc.to undertake the Supply, Installation, Testing & Commissioning of Closed-Circuit Television and their maintenance in the Branches / Offices and after sales, their servicing & maintenance for Kerala Bank.

AND WHEREAS Kerala Bank has agreed to accept the offer of the Firm on the terms and conditions stipulated hereinafter:

Now in consideration of the aforesaid it is hereby agreed between the two parties, as under:

1. VALIDITY OF RATE CONTRACT:

- a) The Agreement shall be effective from the date of signing of the agreement and shall be in force for an initial period of One Year and shall automatically be terminated after the expiry of one year unless renewed. However, the same shall be renewable only on getting a written request from the Firm before expiry and at the sole discretion of the Bank.

- b) Kerala Bank shall have sole discretion to terminate the contract agreement at any time during the contract period, if considered necessary, for any reason, whatsoever by giving a notice of 30 days.

2. PROCEDURE AND SCOPE OF WORK

a) FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF CLOSED-CIRCUIT TELEVISION SYSTEM (CCTV)

The following procedure of work is to be followed for Supply, Installation, Testing & Commissioning of Closed-Circuit Television System in the Branches / Offices:

- a) The addresses of the Branches are available at Kerala Bank's website <https://www.kerala.bank.in>. The details of the Implementation Plan and BOQ are as per Annexure – G.
 - b) The Supply, Installation & Maintenance will be carried out by the Firm during any working day as per schedule, before or by the date or as and when ordered by Branches on requirement basis.
 - c) The installation of Closed-Circuit Television System should be carried out under the supervision of Branch Manager/ Nominated Official.
 - d) Care should be taken that the DVR/NVR of Closed-Circuit Television system is installed at a secure place in Branch under Lock and Key arrangement and one key should be handed over to the Branch Manager for safe custody.
- b) Monitor to be provided to Branch Manager to regularly monitor the CCTV footage. The CCTV Surveillance should cover the following key areas in the branches :-
- All entrances and exits of Branch (outdoor with suitable IP rating - 2 Nos.)
 - Branch Manager Cabin
 - Banking Hall
 - CCTV should be installed in such a way to cover all cash counters/teller counters operator area of operation and the faces/ activities of customers.
 - A Varifocal camera Inside Cash counter.
 - All the components shall be provided with supportive UPS ensure the surveillance will always be operational.
 - Thorough checkup, testing, servicing cleaning, inspection & maintenance etc. of complete CCTV systems and its accessories like PC, NVR system, Cameras, UPS, Connectors etc.
 - Check the cameras & their lenses for their serviceability. Check picture quality for each of the camera.
 - Check picture quality of all IR cameras during night recording.
 - Check availability of 180 days recording for all cameras in motion-detection mode.
 - Check whether the CCTV is being kept switched ON 24X7.
 - Switch off the regular power supply and check the working of CCTV system on UPS/Battery back-up.
 - To train bank staff on operations of the CCTV system including special features, data retrieval, copy it on pen drive, making of CD, troubleshooting & routine maintenance of CCTV.
 - To rectify these equipments and replace worn out ones.
 - Retrieval of CCTV footage as and when required /or called by the Bank. Maintain/ update record of CCTV in the Security Information Register.

- The maintenance should be done in the presence of the Branch Manager or some other official of the Branch authorized by the Branch Manager. The engineer/ technician, must carry Firm's Authority Letter and Identity Card should give demonstration regarding the repair replacement etc.
- c) Three copies of "CERTIFICATE FOR INSTALLATION" (sample copy enclosed as Annexure – H and I) must be prepared by the Firm and submitted to the following officials at the time of Installation.
- Branch Manager.
 - GM, GAD Kerala Bank — Head Office.
 - Bidder copy (all signed by Branch Manager).
- d) Firms to complete the Supply, Installation work and get Installation/ Maintenance Certificate signed from the BM as given below in addition to the Firms/ Company's service certificate.

Three copies of "CERTIFICATE FOR NEW INSTALLATION" (sample copy enclosed as Annexure - H) and Three copies of "CERTIFICATE FOR INSTALLATION (Applicable for Service/Breakdown Maintenance)" (sample copy enclosed as Annexure - I) must be prepared by the Firm and submitted to the following officials at the time of each Installation / maintenance work.

- Branch Manager.
 - GM, GAD Kerala Bank — Head Office.
 - Bidder copy (all signed by Branch Manager).
- e) The representative of the Firm should arrange to visit Branches/offices during working hours, but they should try and complete their task well before the closing of working hours.
- f) The visiting mechanic / technician of the Firm, who should be in possession of identity card and authority letter, shall carry out the Periodic Inspection of the System. The following procedure shall be followed for maintenance of Closed-Circuit Television System at the Branches / Offices:
1. By accepting the work order placed by the Bank, the Firm shall assume all responsibilities and fully indemnify the Bank against liabilities and consequences of any damages to any part/ equipment of the building and any accident /injury to any person, whether Firm's employee or anyone else, during execution of work.
 2. The Firm shall reinstate all damages of any sort mentioned in this clause, to deliver the whole of the contract works complete and perfect in every respect and also make good or otherwise satisfy all claims for damage s to the property or of third parties.
 3. In case of any break down (minor/major) qualified technical/engineer should be deputed by the firm for repairing the system. On receipt of information from the Branches/RO/HO the firm shall respond within 72 hours in plains and 96 hours in hilly terrains like Wayand, Idukki, etc. (which may be notified).
 4. The repairs/servicing of the system/equipment's shall be done as of the respective manuals of the manufactures. In case the system requires replacement, the Firm shall provide a standby of same capacity before taking the defective system.
 5. The Firm shall make necessary arrangements to acquire insurance cover against fire, damage, accidents, injury to workmen during installation work and of equipment till it is tested, commissioned, and handed over to the Bank.
 6. The acceptance of this work order by the Firm shall automatically indemnify

- the Bank against any claim pertaining to or arising out of the said work till the system is tested, commissioned, and handed over to the Bank.
7. Any damage caused to the existing structure, wiring, other devices/equipment during installation shall have to be made good by the Firm at its own expense, failing which the Bank will be free to do the needful to restore the status-quo-ante at the risk and cost of the Firm and shall recover the cost for such rectification from the Firm's final bill.
 8. While carrying out wiring, it should be ensured that adequate flexibility is available in the wiring to allow the renovation work on the floor, when-ever required.
 9. Required margins from the ceiling on each floor to allow renovation work, whenever required, will have to be catered for while executing the installation in consultation with Branch Manager.
 10. All cables / wires, sensors, panic switches should be properly anchored / fixed.
 11. The wiring for the system should be so spaced to cause no electrical interference in the data cables; this aspect shall be tested and confirmed by the Firm during the progress of the work.
 12. Whenever the data cables have to be crossed, as far as possible, the pattern of other electrical wiring shall be followed.
 13. The Firm shall ensure that the work is carried out neatly and Bank's ambience is not disturbed.
 14. The Firm shall also ensure that there should be no damage to Bank's property/or any decorative structure, while carrying out the work. The contractor will rectify the damages at his own cost.
 15. The Firm will ensure that when-ever the work is to be carried out in the working hours, the entire work involved shall be carried out with least disturbance.
 16. All dismantling work and work generating noise shall be done after office hours and holidays and day-time work shall have to be done in restricted hours, after obtaining written permission from the Branch Manager.
 17. The debris/ dust or any wastage generated out of the above work shall be cleaned as frequently as required and as instructed by the Branch Manager/ Bank's Engineer.
 18. The Firm shall make adequate arrangement for watch and ward of his material and shall ensure the safety, breakage and any theft of such material fixed or unfixed by the firm.
 19. The work executed / equipment supplied should be got inspected by the authorized Official and the contractor shall rectify any bad workmanship / defect pointed out at any stage and rectify the same.
 20. The Firm shall be responsible for the application of labour laws, all other social security enactments applicable to such works and workmen compensation for injury and accident to person, if any, employed by it.
 21. The statutory deductions like income tax and any other taxes, as applicable shall be deducted at source from each payment of the Firm.
 22. Firm shall, under no circumstances, be allowed any enhancement of rates for 12 months i.e., one year from the date of signing of the contract. The rates accepted are inclusive of packaging, labour, transportation, installation charges, and all other taxes, as applicable. No extra or additional charges other than the ones quoted in the respective Proposals shall be allowed. It is also made clear that firm completely indemnify the Bank against such dues and/or any claims made by any statutory authority subsequently, and to settle all such claims shall remain firm's responsibility.

- g) In case of a serious lapse or non-fulfillment of any terms & conditions, the contract is liable to be cancelled and payments may be withheld.
- h) The Bank reserves the right, to make changes in method and specifications of work within the overall framework of the terms and conditions.
- i) The Bank also reserves the right to seek downward revision of prices after the initial fixed rate period, if it finds that the prices have fallen 30% or more of the equipment being supplied. All components/sub-assemblies/spares used shall be as per the Technical Specifications of the Bank. No deviation shall be allowable in this regard, unless approved by the Bank authorities.
- j) The responsibility for maintaining the equipment during the warranty period of Three Years and later during AMC, would be the responsibility of the Firm.
- k) **Warranty Period.** The successful Bidder is required to provide three years ON-SITE Comprehensive Warranty from the date of supply for all Closed-Circuit Televisions (CCTV) Surveillance and Burglar Alarm System. The bidder is required to offer their rates for **Annual Maintenance** upon expiry of warranty period.
- l) The Firm shall attend to any other unforeseen, reasonable requirement of the Bank within the overall framework of the contract, which may arise during the course of operations/currency of Contract.
- m) The Bank reserves the right to mete out penalty from the Firm upon receipt of recommendations duly supported by documents, from the Branches / Offices.
- n) The Bank shall extend its co-operation to facilitate the smooth execution of this contract. Any difficulty faced by the firm in execution of this contract shall be brought to the notice of concerned Bank Official without any delay.
- o) In case of any dispute, the procedure (under Arbitration Act 1996) shall be taken recourse to. The courts at Thiruvananthapuram shall alone have jurisdiction in this regard.
- p) Notwithstanding any condition stipulated above, Poor performance, abnormal delay in completion of work, abandoning of allotted work, bankruptcy, for any activity detrimental to the interest of the Bank, the Bank shall have the right to instantly revoke / cancel the said contract without prior notice. In this regard, decision of the Bank will be final and binding on the Firm. The said contract is not binding on the Bank and its sole discretion of the Bank to cancel/terminate the contract without assigning any reason thereof with liability to may only for the equipment supplied and installed at its entities.
- q) The successful tenderer shall, before signing the agreement and within the period specified in the letter of acceptance of his tender, **deposit a sum equivalent to 2.5% of the value of the contract** as security in the form of DD or provide Performance Bank Guarantee for equivalent amount for the satisfactory fulfilment of the contract which will be refunded after three months of completion of contract.

14. SELECTION PROCESS

- a) Bank will evaluate the EOI's and based on the criteria set forth will short list qualified Applicants. Fulfillment of minimum criteria will not ensure empanelment. Bank reserves the right to carryout rectification / inspection of credential / works, as may be required.
- b) The 'Eligibility Criteria' to be considered will be mainly based on the experience on AMC, supply, installation, testing & commission of system well within time frame, maintenance of the system / equipments within 24 hrs to maximum 48 hrs, resource & stock of materials, skilled technical team with experience, proper

service centre at different locations in Kerala, experience of similar work in banking sector, financial position, other mandatory documents, etc.

- c) The work will be awarded to the bidder who has **quoted the least amount in each district** and will be awarded Letter of Invitation to take up the work, if L1 fail to accept the work contract, the work will be awarded to the next bidder L2 etc. Bank reserves the right to negotiate with the L1 Bidder. The right to award the work or not will be the sole discretion of Kerala Bank.

3. PAYMENTS AND DEDUCTION

No advance payment shall be made by Kerala Bank. Payments will be released as and when the bidder completes the supply installation and commissioning (including awareness training to staff of the branch) of CCTV and Burglar Alarm for every 5 Branches. The bidder has to collect the proformas signed by Branch Managers and produce it in Kerala Bank Head Office and raise invoices of the completed work.

4. STATUTORY REQUIREMENTS

- a) Vendor should comply with all the labour Laws, Rules and Regulation of State and Central Government.
- b) The applicant should furnish their PAN No, GSTIN/UIN, Registration details of firm with PIN No., TIN No. etc. as applicable.

5. TRAINING

Periodical training should be provided by the manufacturer at site to our concerned department officers/staff. Operator level training should be provided by the Vendor.

6. WORK ORDER

- a) Work order will be placed by Head Office to the Vendor. The Vendor will execute the work orders placed to them within 15 days. If the work is not executed within the mentioned time period, then Bank may engage other Vendors to complete the work.
- b) Supply of new equipment or replacement of any equipment other than which is covered under warranty or Comprehensive AMC will be carried out by Vendor only after getting approval from the respective Department. Otherwise Bank reserves its right to reject the supplied equipment and stop payment. This will invite penalty or change of Vendor /blacklisting the vendor.
- c) The Bank shall have a right to cause a technical examination and audit of works and the final bills of the Vendor including all supporting vouchers, abstracts etc. to be made at the time of payment of the final bills.

7. PENALTY

NEW SUPPLY & INSTALLATIONS. Period of completion / execution of work/ order for supply & installations will be 90 days from the date of receipt of order. In case of delay not attributed to the bidder in completion/execution of work / order a penalty of Rs.500/- per day per system subject to the maximum of 10% of cost of work order will be deducted as fine. The Bank reserves its right to deduct the penalty amount from the billed amount. The bank has the right to terminate the contract, if the vendor abandons the work or fails to commence and complete the work by given time or fails to abide by the contract conditions.

- 8. DURING WARRANTY PERIOD** similarly, the firm, on execution of work, will also be required to attend to the complaints of Closed-Circuit- Television System within 72 hours except for the hilly & mountainous areas where the time period will be 96

hours during the warranty period. In case of delay beyond above period in attending to the complaint during warranty period a penalty of Rs.500/- per day per system (subject to the maximum 10% of billed amount) shall be levied. Bank reserve its right to get the faulty items/systems repaired/replaced at the risk & cost of vendor. Bank also reserves its right to deduct the penalty amount from any pending bills/dues.

9. In case of supply of substandard materials. The acts, contrary to the laid down norms, or on detection of any tendency to cheat the Bank, the contract to the company will be cancelled without prior notice and the Firm will be delisted or blacklisted by the Bank.

10. FOR AMC / QUARTERLY VISITS For delay beyond 72 hours in plains and 96 hours in hilly terrains of getting to attend the break down complaint during AMC, penalty at the rate of Rs. 200/- per day to a maximum of 10% of the total AMC value shall be imposed. This amount shall be deducted from the final AMC bill.

11. NOTIFICATION OF SUCCESSFUL BIDDER

The Bank/SBIIMS will notify the successful bidders in writing by registered letter, email or fax, to be confirmed in writing by registered letter that its bid has been accepted.

12. ISSUE OF LETTER OF INTENT

The bidder shall within 15 days of issue of Letter of Intent give its acceptance in conformity with the bid documents.

13. CANCELLATION OF LETTER OF INTENT

Failure of the successful bidder to comply with the requirement of submission of Performance Guarantee in time shall constitute sufficient ground for the cancellation of the acceptance of bid and forfeiture of the bid bond, in which case Bank may make the offer to any other bidder at the discretion of the Bank or call for new bids.

Any clarification can be obtained during meeting scheduled at **11:30 AM on 06.03.2026** at

**The Kerala State Co-operative Bank Limited,
Co-Bank Towers, Vikas Bhavan P.O-695033, Kerala**

The Bank reserves the right to reject any or all the offers without assigning any reasons therefore.

The soft copies of all the documents shown in Tender Document, Additional document should be up loaded in our e-tender website <http://etenders.kerala.gov.in>

UNDERTAKING

1. That we will carry out the supply/maintenance/service/testing work of bank's CCTV system in the Branches/offices of Kerala Bank.
2. That we will carry out the work at all allotted centers/branches/offices under Kerala Bank and will have our service centre with technicians/representatives at service center, so as to be attend to the calls from Branches/offices for maintenance/service & supply of CCTV system, Burglar Alarm etc. promptly. We will also continue to keep activated a dedicated e-mail ID and mobile of the Single Point of Contact (SPOC), for receiving the complaints from Branches/offices. We also undertake that we will receive the complaints from Branches/offices from 9.30 am to 5.30 PM telephonically on all bank working days. We will also undertake that due record of each complaint lodged by Branches/Offices of bank will be maintained by us and complaint/docket numbers will be given to complainant.

Place:

Authorized Signatory of the
firm/company with seal

Date:

The Kerala State Co-operative Bank Ltd.

Submission of commercial proposal for Supply, Installation, Testing & Commissioning of Closed-Circuit Television (CCTV) System and Burglar Alarm

To

THE CHIEF EXECUTIVE OFFICER,
THE KERALA STATE CO-OPERATIVE BANK LTD,
HEAD OFFICE, COBANK TOWERS,
PALAYAM, VIKAS BHAVAN,
THIRUVANANTHAPURAM, PIN-695033

Dear Sir,

Request for supply, installation, testing & commissioning of Closed-Circuit Television (CCTV) System and Burglar Alarm – submission of commercial proposal.

Our quotation is as under:

Sl. No.	Name of District	No. of Branches where CCTV to be implemented	Rate per Branch (inclusive of all taxes)
1	THIRUVANANTHAPURAM	78	
2	KOLLAM	64	
3	PATHANAMTHITTA	61	
4	ALAPPUZHA	56	
5	KOTTAYAM	58	
	TOTAL	317	
Sl. No.	Name of District	No. of Branches where Burglar Alarm to be implemented	Rate per Branch (inclusive of all taxes)
1	THIRUVANANTHAPURAM	78	
2	KOLLAM	64	
3	ALAPPUZHA	7	
	TOTAL	149	

Thanking You

Yours faithfully,

For

Authorised Signatory with Seal _____

VENDOR INFORMATION**SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF CLOSED-CIRCUIT TELEVISION (CCTV) SYSTEM
AND BURGLAR ALARM FOR KERALA BANK**

1.	Name of the Firm/Company/Agency	:	
2.	Address with Communication Nos.	:	(a) Head Office: (b) Local Office(s) in Service Centers:
3.	Details of Single Point of Contact for Installation/Complaint/AMC support	:	(a) Landline: (b) Mob No: (c) Dedicated email:
4.	Organization Details (Name of Director/MD etc.)	:	
5.	Name and Address of Banker:	:	
6.	Bank account No	:	
7.	Names of Original Equipment Manufacturers:	:	
8.	GST No: of Bidder	:	
9.	PAN of Bidder	:	

Place:

Authorized Signatory of the
Firm/Company With seal

Date:

ANNEXURE - D

Particulars in respect of works executed in the last 7 years satisfying the minimum eligibility criteria and completion certificate (work orders to be enclosed)

SI No	Name of work/project with address	Description of work executed	Value of the work executed	Name and address of the clientele	Date of completion

(Signature of the authorized signatory with seal)

Annual turnover for the last 3 years Rs in lacs (copy of audited P&L account, Balance Sheet and IT Returns for the last three years to be submitted.

Year ended	31.03.2023	31.03.2024	31.03.2025
Annual turnover			
Profit			
Average Annual Turnover for the last 3 Financial Years			

Minimum Technical Specifications of Components (not limiting to)**1. 4 MP Dome Camera with Three years warranty**

4 MP Dome Camera	
Feature	Specification
Image Sensor	CMOS Image Sensor 1/2.9" 4MP PS or better
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.06 lux@F1.6 (Color, 30 IRE), 0.006 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control (AGC)	Auto/Manual
Lens Type	Fixed-focal
Max. Aperture	F1.6
Lens Mount	M12
Close Focus Distance	3:6 mm: 1.7 m
Iris Control	3.6mm Lens
Day/Night	Fixed
S/N Ratio	Auto (ICR)/Color/B/W
Back Light Compensation	>55 dB
Angle Adjustment	BLC/HLC/WDR (120dB)
Video Compression	Pan: 0°-360", Tilt: 0-78", Rotation: 0°-360"
Angle of View	Cloud Streaming, H.265, H.264, H.264H, H.264B, MJPEG (Only supported by the sub stream)
DORI Distance	Maxm H 78, V50 3.6 mm, D: 93"
Resolution	Lens 3.6mm: 85.4 m (Detect), 34.2 m (Observe), 17.1 m (Recognize), 8.5 m (Identify) 4M (2688 x 1520), 4M (2560 x 1440), 3M (2304x1296), 2M (1920 x 1080), 1.3M (1280x960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352x288/352 x 240)
Frame Rate	Main stream: 4MP (2688x1520)/ (2560x1440)@1-25/30fps Sub stream 1: 720P(1280x720) D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640x480)@1-30fps, CIF (352x240)@1-30fps, (352x288) @1-25fps Sub stream 2: D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, GA(640x480)@1-30fps, CIF (352x240)@1-30fps/ (352x288) @1-25fps
IR Control	Auto, Manual
IR Number	1 (Multi-core (IR+warm) light)
IR & Warm Light	IR Range of 30 Mtr. Warm Light Range of 30 Mtr.
Noise Reduction	3D NR
Motion detection	OFF/ON (4 areas, rectangular)
Privacy Mask	4 areas
Video format	PAL/NTSC
Stream Capability	Triple Stream
ROI	Support (4 areas)
Audio	Built-in Mic
Audio Compression	G.711a, G.711Mu, PCM, G.726, AAC
SMD	Support the classification and accurate detection of human and vehicle
OSD	Camera title, Date & Time
Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Version 1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Pro-file G, Profile T), unicast, multicast.
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, SMD (human & Motor Vehicle), Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support

Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE: IE11, Chrome, Firefox
Image Rotation	4MP only support 0°/180". 2MP & lower will support 0°/90°/180°/270°
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP
Weatherproof Standard	IP67
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 1.6 W (12 VDC), 2.0 W (PoE) Max.: 3.7 W (12 VDC), 4.7 W (PoE) (H.265+Intelligence on + WDR+ warm light intensity)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	95% (RH), non-condensing
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Humidity	95% (RH), non-condensing
Casing	Metal + Plastic
Certificates	ISO9001, CE, FCC and ROHS, BIS
Image Sensor	CMOS Image Sensor 1/2.9" 4MP PS or better
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.06 lux@F1.6 (Color, 30 IRE), 0.006 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control (AGC)	Auto/Manual
Lens Type	Fixed-focal
Max. Aperture	F1.6
Lens Mount	M12
Close Focus Distance	3.6 mm: 1.7 m
Iris Control	3.6mm Lens
Day/Night	Fixed
S/N Ratio	Auto (ICR)/Color/B/W
Back Light Compensation	>55 dB
Angle Adjustment	BLC/HLC/WDR (120dB)
Video Compression	Pan: 0°-360°, Tilt: 0-78°, Rotation: 0°-360°
Angle of View	Cloud Streaming, H.265, H.264, H.264H, H.264B, MJPEG (Only supported by the sub stream)
DORI Distance	Maxm H 78, V50 3.6 mm, D: 93"
Resolution	Lens 3.6mm: 85.4 m (Detect), 34.2 m (Observe), 17.1 m (Recognize), 8.5 m (Identify) 4M (2688 x 1520), 4M (2560 x 1440), 3M (2304x1296), 2M (1920 x 1080), 1.3M (1280x960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352x288/352 x 240)
Frame Rate	Main stream: 4MP (2688x1520)/ (2560x1440)@1-25/30fps Sub stream 1: 720P(1280x720) D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640 x480)@1-30fps, CIF (352x240)@1-30fps, (352x288) @1-25fps Sub stream 2: D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, GA(640x480)@1-30fps, CIF (352x240)@1-30fps/ (352x288) @1-25fps
IR Control	Auto, Manual
IR Number	1 (Multi-core (IR+warm) light)
IR & Warm Light	IR Range of 30 Mtr. Warm Light Range of 30 Mtr.
Noise Reduction	3D NR
Motion detection	OFF/ON (4 areas, rectangular)
Privacy Mask	4 areas
Video format	PAL/NTSC
Stream Capability	Triple Stream
ROI	Support (4 areas)

Audio	Built-in Mic
Audio Compression	G.711a, G.711Mu, PCM, G.726, AAC
SMD	Support the classification and accurate detection of human and vehicle
OSD	Camera title, Date & Time
Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Version 1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast.
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, SMD (human & Motor Vehicle), Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support
Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE: IE11, Chrome, Firefox
Image Rotation	4MP only support 0°/180°. 2MP & lower will support 0°/90°/180°/270°
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP
Weatherproof Standard	IP67
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 1.6 W (12 VDC), 2.0 W (PoE) Max.: 3.7 W (12 VDC), 4.7 W (PoE) (H.265+Intelligence on + WDR+ warm light intensity)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	95% (RH), non-condensing
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Humidity	95% (RH), non-condensing
Casing	Metal + Plastic
Certificates	ISO9001, CE, FCC and ROHS, BIS

2. 4MP Bullet Camera with Three Years warranty

Feature	Specification
Image Sensor	CMOS Image Sensor 1/2.9" 4MP PS or better
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.06 lux@F1.6 (Color, 30 IRE), 0.006 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control(AGC)	Auto/Manual
Lens Type	Fixed-focal
Max. Aperture	F1.6
Lens Mount	M12
Close Focus Distance	3.6 mm: 1.7m
Lens	Fixed
Iris Control	3.6mm Lens
Day/Night	Auto (ICR)/Color/B/W
S/N Ratio	>56 dB
Back Light Compensation	BLC/HLC/WDR (120dB)
Angle Adjustment	Pan: 0°-360°, Tilt: 0°-78°, Rotation: 0-360°
Video Compression	Cloud Streaming, H.265, H.264, H.264H, H.2648, MJPEG (Only supported by the sub stream)
Angle of View	Max 3.6 mm: H: 78°, V: 50°, D: 93°

DORI Distance	Lens 3.6mm: 85.4 m (Detect), 34.2 m (Observe), 17.1 m (Recognize), 8.5 m (Identify)
Resolution	4M (2688 x 1520), 4M (2560x1440), 3M (2304x1296), 2M (1920 x 1080), 1.3M (1280 x 960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352x288/352x240)
Frame Rate	Main stream: 4MP (2688 x 1520)/ (2560 x 1440)@1-25/30fps Sub stream 1: 720P(1280 x 720) D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640x480)@1-30fps, CIF (352x240)@1-30fps, (352x288) @1-25fps Sub stream 2: D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640x480)@1-30fps, CIF (352x240)@1-30fps/ (352x288) @1-25fps
IR Control	Auto, Manual
IR Number	1 (Multi-core (IR + warm) light)
IR & Warm Light	IR Range of 30 Mtr. Warm Light Range of 30 Mtr.
Noise Reduction	3D NR
Motion detection	OFF/ON (4 areas, rectangular)
Privacy Mask	4 areas
Video format	PAL/NTSC
Stream Capability	Triple Stream
ROI	Support (4 areas)
Audio	Built-in Mic
SMD	Support the classification and accurate detection of human and vehicle
Audio Compression	G.711a, G.711Mu, PCM, G.726, AAC
OSD	Camera title, Date & Time
Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Version 1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, SMD (human & Motor Vehicle), Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support
Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE: IE11, Chrome, Firefox
Image Rotation	4MP only support 0°/180°. 2MP & lower will support 0°/90°/180°/270°
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP
Weatherproof Standard	IP67
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 1.6 W (12 VDC), 2.0 W (PoE) Max.: 3.7 W (12 VDC), 4.7 W (POE) (H.265+ intelligence on + WDR+ warm light intensity)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing
Casing	Metal + Plastic
Certificates	ISO9001, CE, FCC and RoHS, BIS
Image Sensor	CMOS Image Sensor 1/2.9" 4MP PS or better
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.06 lux@F1.6 (Color, 30 IRE), 0.006 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB

White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control(AGC)	Auto/Manual
Lens Type	Fixed-focal
Max. Aperture	F1.6
Lens Mount	M12
Close Focus Distance	3.6 mm: 1.7m
Lens	Fixed
Iris Control	3.6mm Lens
Day/Night	Auto (ICR)/Color/B/W
S/N Ratio	>56 dB
Back Light Compensation	BLC/HLC/WDR (120dB)
Angle Adjustment	Pan: 0°-360°, Tilt: 0°-78", Rotation: 0-360"
Video Compression	Cloud Streaming, H.265, H.264, H.264H, H.2648, MJPEG (Only supported by the sub stream)
Angle of View	Max 3.6 mm: H: 78", V: 50, D: 93
DORI Distance	Lens 3.6mm: 85.4 m (Detect), 34.2 m (Observe), 17.1 m (Recognize), 8.5 m (Identify)
Resolution	4M (2688 x 1520), 4M (2560x1440), 3M (2304x1296), 2M (1920 x 1080), 1.3M (1280 x 960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352x288/352x240)
Frame Rate	Main stream: 4MP (2688 x 1520)/ (2560 x 1440)@1-25/30fps Sub stream 1: 720P(1280 x 720) D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640x480)@1-30fps, CIF (352x240)@1-30fps, (352x288) @1-25fps Sub stream 2: D1 (704x576)@1-25 fps/ (704x480)@1-30 fps, VGA(640x480)@1-30fps, CIF (352x240)@1-30fps/ (352x288) @1-25fps
IR Control	Auto, Manual
IR Number	1 (Multi-core (IR + warm) light)
IR & Warm Light	IR Range of 30 Mtr. Warm Light Range of 30 Mtr.
Noise Reduction	3D NR
Motion detection	OFF/ON (4 areas, rectangular)
Privacy Mask	4 areas
Video format	PAL/NTSC
Stream Capability	Triple Stream
ROI	Support (4 areas)
Audio	Built-in Mic
SMD	Support the classification and accurate detection of human and vehicle
Audio Compression	G.711a, G.711Mu, PCM, G.726, AAC
OSD	Camera title, Date & Time
Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Ver-sion 1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, SMD (human & Motor Vehicle), Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support
Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE: IE11, Chrome, Firefox
Image Rotation	4MP only support 0°/180°. 2MP & lower will support 0°/90°180°/270°
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP
Weatherproof Standard	IP67

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 1.6 W (12 VDC), 2.0 W (PoE) Max.: 3.7 W (12 VDC), 4.7 W (POE) (H.265+ intelligence on + WDR+ warm light intensity)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing
Casing	Metal + Plastic
Certificates	ISO9001, CE, FCC and RoHS, BIS

3. 4 MP Vari- Focal Dome Three Years warranty

Feature	Specification
Image Sensor	CMOS Image Sensor 1/2.7" 4MP PS or higher
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control (AGC)	Auto/Manual
Lens Type	Motorized vari-focal
Max. Aperture	F1.4
Lens Mount	M14
Close Focus Distance	0.8 m
Lens	2.7 mm-13.5 mm
Iris Control	Auto (ICR)/Color/B/W
Day/Night	>58 dB
S/N Ratio	BLC/HLC/WDR (120dB)
Back Light Compensation	Pan: 0-355", Tilt: 0-75", Rotation: 0-355"
Angle Adjustment	Cloud Streaming, H.265, H.264, H.264H, H.2648, MJPEG (Only supported by the sub stream)
Video Compression	H: 104"-29", V: 54"-16", D: 125"-34"
Angle of View	Lens W: 64.0 m (Detect), 25.6 m (Observe), 12.8 m (Recognize), 6.4 m (Identify) Lens T: 210.0 m (Detect), 84.0 m (Observe), 42.0 m (Recognize), 21.0 m (Identify)
DORI Distance	4MP (2688 x 1520)/(2560x1440), 3MP (2304x1296), 2MP (1920 x 1080), 1.3MP (1280x960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352 x 288/352 x 240)
Resolution	Main stream: 4MP (2688 x 1520) @1-20 fps/ (2560 x 1440) @1-25/30 fps; Sub stream 1: 720p/D1/VAG/CIF@25/30fps, Sub stream 2: D1/VGA/CIF/@25/30fps; Sub stream 3: D1/VGA/CIF@1fps
Frame Rate	Fixed
IR Control	2 IR LED
IR Number	IR Range of 50 Mtr.
IR	3D NR
Noise Reduction	OFF/ON (4 areas, rectangular)
Motion detection	4 areas
Privacy Mask	PAL/NTSC
Video format	Quad Stream
Stream Capability	Support (4 areas)
ROI	Built-in Mic
Audio	G.711a, G.711Mu, G.726, PCM, AAC
Audio Compression	Camera title, Date & Time
OSD	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Version
Protocol	1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast
Alarm Event	No SD card, SD card full, SD card error, Network disconnection, IP

	conflict, Illegal access, Motion detection, Video tampering, Tripwire, Intrusion, Audio detection, Voltage detection, Defocus detection, External Alarm, SMD, Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, vidAES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted booted encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support
Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-8192 kbps, H.264: 3 kbps-8192 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE, Chrome, Firefox
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 x 1520 resolution and lower)
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP, NAS, Mirco SD card (Max. 512GB)
Weatherproof Standard	IP67, IK10
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.3 W (12 VDC), 3.2 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 6.5 W (12 VDC), 7.7 W (POE)
Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Humidity	95%
Storage Temperature	-40 °C to +60 °C (-40°F to +140°F)
Casing	Metal
Certificates	ISO9001, CE, FCC and ROHS
Image Sensor	CMOS Image Sensor 1/2.7" 4MP PS or higher
Effective Pixels	2688 (H) x 1520 (V)
Minimum Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on)
Electronic Shutter	Auto/Manual 1/3 s-1/100,000 s
RAM & ROM	128 MB & 128 MB
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom
Gain Control (AGC)	Auto/Manual
Lens Type	Motorized vari-focal
Max. Aperture	F1.4
Lens Mount	M14
Close Focus Distance	0.8 m
Lens	2.7 mm-13.5 mm
Iris Control	Auto (ICR)/Color/B/W
Day/Night	>58 dB
S/N Ratio	BLC/HLC/WDR (120dB)
Back Light Compensation	Pan: 0-355°, Tilt: 0-75°, Rotation: 0-355°
Angle Adjustment	Cloud Streaming, H.265, H.264, H.264H, H.2648, MJPEG (Only supported by the sub stream)
Video Compression	H: 104"-29", V: 54"-16", D: 125"-34"
Angle of View	Lens W: 64.0 m (Detect), 25.6 m (Observe), 12.8 m (Recognize), 6.4 m (Identify) Lens T: 210.0 m (Detect), 84.0 m (Observe), 42.0 m (Recognize), 21.0 m (Identify)
DORI Distance	4MP (2688 x 1520)/(2560x1440), 3MP (2304x1296), 2MP (1920 x 1080), 1.3MP (1280x960), 720p (1280 x 720), D1 (704x576/704x480), VGA (640 x 480), CIF (352 x 288/352 x 240)
Resolution	Main stream: 4MP (2688 x 1520) @1-20 fps/ (2560 x 1440) @1-25/30 fps; Sub stream 1: 720p/D1/VAG/CIF@25/30fps, Sub stream 2: D1/VGA/CIF/@25/30fps; Sub stream 3: D1/VGA/CIF@1fps

Frame Rate	Fixed
IR Control	2 IR LED
IR Number	IR Range of 50 Mtr.
IR	3D NR
Noise Reduction	OFF/ON (4 areas, rectangular)
Motion detection	4 areas
Privacy Mask	PAL/NTSC
Video format	Quad Stream
Stream Capability	Support (4 areas)
ROI	Built-in Mic
Audio	G.711a, G.711Mu, G.726, PCM, AAC
Audio Compression	Camera title, Date & Time
OSD	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V3, TLS Version
Protocol	1.2, TCP/IP, PPPOE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast
Alarm Event	No SD card, SD card full, SD card error, Network disconnection, IP conflict, Illegal access, Motion detection, Video tampering, Tripwire, Intrusion, Audio detection, Voltage detection, Defocus detection, External Alarm, SMD, Security exception
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, vidAES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot
Mirror Function	Support
Ethernet	RJ-45 (10/100 Base-T)
Bit Rate	H.265: 3 kbps-8192 kbps, H.264: 3 kbps-8192 kbps
Bit Rate Control	VBR, CBR
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart
Browser	IE, Chrome, Firefox
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 x 1520 resolution and lower)
User/Host	6 (Total bandwidth: 36 M)
Storage	SFTP, NAS, Mirco SD card (Max. 512GB)
Weatherproof Standard	IP67, IK10
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.3 W (12 VDC), 3.2 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 6.5 W (12 VDC), 7.7 W (POE)
Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Humidity	95%
Storage Temperature	-40 °C to +60 °C (-40°F to +140°F)
Casing	Metal
Certificates	ISO9001, CE, FCC and ROHS

4. 16 Channel NVR 4 SATA

Feature	Specification
Processor	Industrial-grade embedded processor
Operating System	Embedded LINUX
IP Camera Input	16 channels
User Interface	Web, Local GUI
Video Output	1-ch VGA output and 1-ch HDMI output; simultaneous/heterogeneous video sources output for VGA and HDMI is configurable
Compression	H.265/5mart H.264+/H.264/MJPEG
Decoding Capability	AI off: 1 channel x 16MP@20fps; 1 channel x 12MP@20fps; 2 channels x

	8MP@30fps; 4 channels x5MP@30fps; 5 channels 4MP@30fps; 10 channels x 1080p@30fps AI on: 1 channel x 16MP@20fps; 1 channel x 12MP@20fps; 2 channels x 8MP@30fps; 3 channels x5MP@30fps; 4 channels x 4MP@30fps; 8 channels x 1080p@30fps
AI by NVR	Face detection; face recognition; perimeter protection; SMD Plus
Resolution	16MP; 12MP, BMP, 5MP; 4MP, 3MP; 2MP, 720P, D1
Network Bandwidth	AI off: Access: 256 Mbps; Storage: 256 Mbps; Forward: 256 Mbps AI on: Access: 160 Mbps; Storage: 160 Mbps; Forward: 160 Mbps
Video Display Split	1st Screen: 1/4/8/9/16; 2nd Screen: 1/4/8/9
SMD Plus by NVR	4
General Alarm	Motion detection; privacy masking, video loss, scene changing; PIR Alarm; IPC External Alarm
Audio Input Output	1 channel Input, 1 channel Output, RCA
Audio Compression	PCM; G.711A; G.711U; G.726
Alarm Input & Output	16 channel & 6 channels
Hard Disk	4 SATA ports, up to 10 TB.
Multi-channel Playback	Up to 16 channels
Record Mode	Manual; schedule (general; MD; Alarm; MD & Alarm; intelli-gent)
Backup Method	USB device and network
Interface Ports	1 front USB 2.0 port, 1 rear USB 3.0 Port, 1 RS485, 1 RS232
Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6; UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS; IP Filter; PPPOE, DDNS, FTP; Alarm Server; IP Search; Cloud Streaming; auto register; ONVIF (pro-file T/S/G); CGI; SDK
Ethernet	2 RJ-45 10/100/1000 Mbps self-adaptive Ethernet ports
Power Supply	Single, 100 V-240 V AC, 50 Hz-60 Hz
Power Consumption	Total output of NVR is ≤ 8 W (without HDD)
Storage Temperature	0°C to +40 °C (32 °F to 104 °F)
Storage Humidity	30%-85%
Smart Phone	IPhone, Ipad, Android Phone

5. VMS SERVER

Feature	Specification
Processor	Intel i5-6600, 64 bits 4 Core Processor
Operating System	Embedded Linux
Memory	16GB
Motherboard	Embedded Board (support 7x24 operation)
Hard disk hot swap	Hot swap and online replacement
Hard disk compatibility	SAS/SATA disk
Auto-Register	500 devices and 1000 channels
Total Video Device and Channel	500 devices and 1000 channels
Face Recognition Channel	100
ANPR Device	64
ONVIE	200 devices; 400 Channels
Object Detection Channel	20
Heatmap Channel	64
People Counting Channel	100
Access Control	200 IP: 512 Doo
VDP	2000 IP (Unit no more than 200)
Alarm Control	10 IP; 100 Channel
Bandwidth of Video Input per Server	600 Mbps
Bandwidth of Video Output per Server	600 Mbps
Playback Bandwidth per Server	100 Mbps
Download Task	5
Maximum Record Plan	100
Alarm Rules	200
Face Library	50

Total Person for Face Library	5000
Face Images Imported Each time	1000
ANPR Vehicle Blocklist	100
Submap	32 per hierarchy
Hard Disk	Support 15HDD disks (3.5") for Video or Picture storage (16TB per HDD)
Storage	Up to 200TB per server
RAID	Single, Raid 0/1/5/6/10
Ethernet	4 RJ-45 Ports (100/1000Mbps)
RS232	Reserved
RS485	Reserved
USB	Front panel: 2x USB 2.0, Rear panel: 2 x USB 2.0
HDMI	3 HDMI
VGA	1 VGA
Power	Maximum power 315W, stable power 210W
Working Temp	0°C~40°C
Working Humidity	10%~80% (non-condensation)
Working Altitude	0m - 5000m
Dimensions	Less than 450 mmx135mmx530mm

6. 8 Port Giga POE Network Switch Three years warranty

Feature	Specification
Uplink Ports	2 x 1000Mbps; Transmission Distance: 0-100m
Network Protocol	IEEE802.31/802.3u/802.3x/802.3af/802.3ab
Switch Capacity	20Gbps Full duplex
Packet Forwarding Rate	1.488Mpps/port
PWR (Power supply Indicator)	Light on: Powering Light off: No Power
PoE Ports	8, 1000Mbps; RJ45 ports, Max. 30W Output of Single PoE Port
Network Ports	10
MAC Address Table	2K
	IEEE802.3af, IEEE802.3at
PoE Standard	1/2(+), 3/6(-)
PoE Power Supply	0-100m/1000Mbps or Port 7-8 Max. 250m/10Mbps via Cat.5e or more under Extend mode
Transmission Distance	96W
PoE Power Budget	All ports support MDI/MDIX
POE Feature	Air discharge: 8KV; Contact discharge: 6KV
ESD	Common mode/RJ45 port: 4KV Differential mode/RJ45 port: 2KV Common mode/Power board: 2KV Differential mode/Power board: 2KV
Surge Protection	Support
VLAN	Green light off: Link is disconnected Green light on: Link is connected Green light flash: Data Transmitting
RJ-45 ACT Indicator	Support
Watchdog	Store-and-forward
Forwarding Mode	Built-in Power Supply, Input: 100-240V AC, 50/60Hz
Power Source	<5W
Power Consumption	-10°C~50°C
Operating Temperature	-40°C~70°C
Storage Temperature	10%-95%, non-condensing
Humidity	2 x 1000Mbps; Transmission Distance: 0-100m

7. 6 U Network Rack

Product specifications
Wall Mount Rack 6U
Basic frame: CRCA (MS SHEET) 0.8mm thickness

Construction: Welded
Top having roof Canopy
Cooling fans provision on Left and Right side
Plain top with extension on 3 sides (LH, RH & Front)
Front plain door with key lock and gasket
90CFM, 230V AC Fan - 2 Nos (minimum)
Door Hinges-2 Nos
Rigid frame fixable to the pole
6 Socket PDU (5amp)
Bottom with 2nos. Cable Entry/Exit cut-outs with rubber protection
Wall/Pole mount with brackets
IP56 Rated (Dust proof, Rust proof & Rain water protected)
Standard Finish: Powder Coated RAL 7035 PP (Light Grey)
Dimension: less than 550mm (Width) x 500mm (Depth)

8. CAT 6, 4Pair UTP Cable

Feature	Specification
Conduct Type	Solid Bare Electrolytic Grade Copper
Nominal Conductor Diameter	24 AWG
Insulation	Polyethylene (HDPE)
Separator	Each pair separated with a cross separator
Pairing	2 insulated conductors twisted together
Separator Material	Polyethylene (HDPE)
Outer Sheath	FR PVC
D	5.8mm ±0.1mm
Sheath Thickness	45mm ±.05mm
Rip Cord	Yes
Sequential Marking	Every Mete
Characteristic Impedance	100±150
Nominal Velocity of Propagation	69%
Resistance Unbalance	5% Max
Conductor Resistance	\$9.38/100m
Capacitance Unbalance	330pF/100m
Bending Radius	<4 x Cable Diameter at -20° ±1°C
Delay Skew	<45nS
Mutual Capacitance	<5.6nf/100m
Packing	305 Mtrs
Storage Temperature	0 to 50°C
Impedance	-15 to 70°C
Temperature Rating	100±15% Ω
Pulling Force	11.5Kg

9. Client PC for Monitoring

CPU Intel Core i7, 64 bits 4 Core Processor or equivalent AMD
Memory-64 GB DDR4
Graphics Card - GeForce GTX 1060 4GB/ Equivalent
Hard Drive Capacity - 1 TB SSD
Ethernet Port - GIGA
Connectivity Wifi, Bluetooth
Display: 22 Inches FHD
Windows 11 Professional
Warranty 3 Year Onsite
ISO Certified

10. Burglar Alarm

10.1 CONTROL PANEL

S.No	Specifications
1	Safety and Security Alarm panel capable of integrating Intruder Alarm, Fire Alarm, and automation.
2	Inbuilt and onboard Ethernet and 4G GSM communicator
3	Capacity to connect up to 100 detectors and devices
4	Capacity up to 50 users with customizable notifications
5	Includes scenarios including Alarm responses
6	Minimum 9 partitions/ groups for individual arming and disarming
7	<p>High security features including</p> <ul style="list-style-type: none"> • Two-way communication. • Advanced anti-sabotage. • Block encryption featuring a dynamic key. • Instant notifications. • Remote configuration in the security apps.
8	<p>Supported notification types</p> <ul style="list-style-type: none"> • Push-notifications • SMS • Calls <p>Event types</p> <ul style="list-style-type: none"> • Alarms • Malfunctions • Security mode changing • System events • Non-security alerts • Automation devices' events <p>The notification types are configured individually for each user.</p>
9	<p>Photo verification types</p> <ul style="list-style-type: none"> • Photo by Alarm • Photo by scenarios • Photo on demand
10	<p>Supported protocols</p> <ul style="list-style-type: none"> • SIA (DC-09) • SurGard (Contact ID) • ADEMCO 685 • Other proprietary protocols <p>Event Types</p> <ul style="list-style-type: none"> • System Alarms and events • Panic button coordinates • Photo verification
11	<p>Main Power supply 110—240 V", 50/60 Hz Up to 10 W of mains power consumption.</p> <p>Backup Power supply Built-in backup battery: Li-ion 3 A-h Up to 15 hours of offline operation when Ethernet is disconnected.</p>
12	<p>Anti-Sabotage features including</p> <ol style="list-style-type: none"> 1. Tamper Alarm The system receives notifications about attempts to detach the device from the surface or remove it from the mounting panel. 2. Protection against spoofing devices' authentication

	Proprietary authentication algorithms make it impossible to spoof the hub or connected devices.
13	EN Grade 2 certified EN 50131
14	The country of Origin of the product strictly should not be from countries sharing nations of India.
15	Enclosure IP20

10.2 Motion Sensor

S.No	Specifications
1	<p>Communication technology Proprietary wireless communication technology to transmit commands, Alarms, and events. Key features:</p> <ul style="list-style-type: none"> • Two-way communication. • Advanced sabotage protection. • Block encryption featuring a dynamic key. • Instant notifications. • Remote control and configuration in security apps. <p>Frequency bands as per India government 868.0-868.6 MHz</p> <p>Maximum effective radiated power (ERP) up to 20 mW Automatic power control to reduce power consumption and radio interference.</p> <p>Radio communication range up to 1,700 m Between the device and a hub (or a range extender) in an open space.</p> <p>Encrypted communication All stored and transmitted data is protected by block encryption featuring a dynamic key.</p> <p>Frequency hopping To prevent radio interference and jamming.</p>
2	<p>Detection Sensitive element PIR sensor</p> <p>Motion detection distance up to 12 m When installed at a height of 2.4 m.</p> <p>Motion detection angle horizontal: 88.5°</p> <p>Motion detection speed from 0.3 to 2 m/s The detector lens should be positioned perpendicular to the likely intrusion path into the facility.</p> <p>Pet immunity Weight: up to 20 kg Height: up to 50 cm</p>
3	EN Grade 2 certified EN 50131
4	The country of Origin of the product strictly should not be from countries sharing nations of India.

10.3 Siren with Light Alarms Outdoor

S.No	Specifications
1	Alarm volume from 85 to 113 dB at a distance of 1 m
2	Alarm duration from 3 to 180 seconds
3	Protection class IP54
4	EN Grade 2 certified EN 50131
5	The country of Origin of the product strictly should not be from countries sharing nations of India.

**BOQ FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF
CLOSED-CIRCUIT TELEVISION (CCTV) SYSTEM & BURGLAR ALARM**

Name of District :

No. of Branches :

S.No	BOQ	Qty per Branch	Rate Quoted (six Cameras per Branch)
1	Indoor 4MP IP Dome Camera	3	
2	Outdoor 4MP IP Bullet Camera	2	
3	4 MP VF CAMERA DOME - STQC CERTIFIED	1	
4	16 CHANNEL NVR	1	
5	10 TB HDD - Without RAID. For 180 days backup	3	
6	6U rack with accessories	1	
7	UTP CAT6 CABLE 1 BOX 305MTR	1	
8	22" MONITOR	1	
9	POE SWITCH 8 PORT	1	
10	CAMERA BOX WITH CONNECTORS	6	
11	1 KVA UPS	1	
12	PVC PIPE / CASING & CAPPING (in meter)	45	
13	Laying, Implementation Charge & Configuration	1	
14	OTHER ACCESSORIES + Electrical (1 LOT)	1	
15	Burglar Alarm with motion sensor	1	

Note :

1. Give Separate quotes for each district.
2. The work shall be completed in all respects within 90 days from the date of Purchase / Work Order.
3. Actuals may slightly vary depending upon conditions at the time of installation.

.....
Thiruvananthapuram

Seal and Seal and signature of the bidder

CERTIFICATE FOR NEW INSTALLATION

It is to certify that the Closed-Circuit Television (CCTV) system and Burglar Alarm has been installed at (Name of the branch) on in accordance with the order numberdated and the system is working satisfactorily. All the items as per Invoice No.dated have been installed at the branch and have been physically verified by (Name and Designation of Officer not below the rank of Manager).

2. It is further certified that working of the of Closed-Circuit Television system and Burglar Alarm has been explained to the following staff members by Shri.....

Authorized representative of M/S

Sl.No.	Name	Designation	Signature
1			
2			
3			
4			
5			

Signature
Authorized Representative

M/s

Date:

Signature
Name and Designation of Officer
not below the rank of Manager
(Branch Seal)

(Applicable for Service/Breakdown Maintenance)

It is to certify that the Closed-Circuit Television system installed at branch has been checked by Shri....., authorized representative of M/S.....on.....(date), in accordance with Complaint registered by Kerala Bank as per Ref No.....dated and the system is working satisfactorily. Auto dialer installed in the Burglar Alarm system is also in working condition and latest contact nos. of Branch Manager, Authorized Branch officials and Police station have been fed in the system.

2. It is further certified that working of the Closed-Circuit Television been explained to the following staff members by Shri....., authorized representative of M/S.....

Sl.No.	Name	Designation	Signature
1			
2			
3			

Signature
Authorized Representative

M/s

Date:

Signature
Name and Designation of Officer
not below the rank of Manager
(Branch Seal)