

**BANK OF MAHARASHTRA**



**RAIPUR ZONE**



**REQUEST FOR PROPOSAL FOR**  
**EMPANELMENT OF AGENCIES FOR**  
**SUPPLY, INSTALLATION & MAINTENANCE**  
**OF SECURITY EQUIPMENTS (CCTV, FIRE**  
**ALARM & BURGLAR ALARM SYSTEMS)**

**BANK OF MAHARASHTRA, RAIPUR ZONAL OFFICE**  
**1<sup>st</sup> FLOOR, CHAWLA COMPLEX, SAI (DEVENDRA) NAGAR,**  
**RAIPUR - 492001**

**Cost of Tender Document Rs 1,000/-**  
**(Including GST, Non-refundable)**

 <p><b>बैंक ऑफ महाराष्ट्र</b> <b>Bank of Maharashtra</b> भारत सरकार का उद्यम</p> <p><b>एक परिवार एक बैंक</b></p> <p>प्रधान कार्यालय : 'लोकमंगल', 1501, शिवाजीनगर, पुणे - 411005. H. O.: 'Lokmangal', 1501, Shivajinagar, Pune - 411005.</p>	<p><b>अंचल कार्यालय रायपुर /Zonal Office Raipur</b> <b>प्रथम तल, चावला कॉम्प्लेक्स, देवेन्द्रनगर,</b> <b>रायपुर 492001</b> 1<sup>st</sup> floor, Chawla Complex, Devendranagar, Raipur, C.G.-492001 Email – <a href="mailto:gad_rai@mahabank.co.in">gad_rai@mahabank.co.in</a></p>	
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Ref no. AX49/SEC/Empanelment/204-25

Date: 21.06.2024

**Empanelment of Agencies for AMC and New Supply of CCTV, Fire Alarm & Burglar Alarm Systems of BANK OF MAHARASHTRA, RAIPUR ZONE**

1. Bank of Maharashtra, Raipur Zonal Office, Raipur invites sealed offers in **Two-bid system** from Agencies having their own Offices in **Chhattisgarh** for providing services of AMC and NEW SUPPLY of SECURITY & FIRE ALARM SYSTEMS, CCTV Systems in 56 branches/offices under Raipur Zone including administrative office. The empanelment of vendors will be for a period of 3 years' subject to satisfactory performance by vendor on yearly basis. The decision in this regard will be the sole discretion of the bank to renew the contract. Only Vendors who are in a position to provide services in **every district of Chhattisgarh State** should apply.

2. Prospective service providers may download the tender document, technical bid / price bid format of RFP from the Bank's website [www.bankofmaharashtra.in](http://www.bankofmaharashtra.in). The cost of tender is **Rs.1,000/- (Non-Refundable)** by way of Demand Draft / Pay Order favoring Bank of Maharashtra, Zonal Office, payable at Raipur. The bids shall accompany the Pay Order / Demand Draft.

(a)	Last date for submission of bids	:	15.07.2024 upto 1500 Hrs
(b)	Opening of RFPs (TO)	:	16.07.2024 at 1200 Hrs
(c)	Opening of Financial Bid	:	18.07.2024 at 1200 Hrs
(d)	Cost of RFP	:	Rs 1,000.00

3. No brokers/intermediaries shall be entertained. The Bank reserves the right to reject any/all applications without assigning any reason whatsoever. The required specifications are enclosed as **Annexure I to VI** of this letter.

4. In case prospective service providers are fulfilling the above specifications, they may submit their **Technical and Financial Bids (strictly in the format enclosed at Annexure I to VII)** in **two separate sealed envelopes** so as to reach us latest **on 15.07.2024 upto 15.00 Hrs.** The envelope should be marked as **TECHNICAL BID/FINANCIAL BID FOR AMC AND NEW SUPPLY OF SECURITY & FIRE ALARM SYSTEM, CCTV SYSTEMS, BANK OF MAHARASHTRA, RAIPUR ZONE** on its top and forwarded to the address **The Zonal Manager, Bank of Maharashtra, Raipur Zone, 1<sup>st</sup> Floor, Chawla Complex, Sai (Devendra) Nagar, Raipur - 492001.**

5. Offers from firms having **their own offices as mentioned in Serial no.-01 above should only apply.** All conditions and parameters will be evaluated with reference to the firms submitting the tenders. The Bank reserves the right to reject any / all applications without assigning any reason whatsoever and also to confirm authenticity of the facts submitted by the bidders.

Date: 21.06.2024

**Zonal Manager**  
**Raipur Zone**

**EMPANELMENT OF FIRMS / SUPPLIERS FOR CCTV SYSTEMS, BURGLAR & FIRE ALARM SYSTEMS IN THE BRANCHES OF RAIPUR ZONE**

**TERMS & CONDITIONS**

**1. SCOPE OF WORK**

Providing maintenance services for existing and new supply of **SECURITY & FIRE ALARM SYSTEM AND CCTV SYSTEMS** in various branches under RAIPUR Zone located at **various districts of Chhattisgarh State**. The firm will also replace the item or install new item as per requirement and approval from competent authority. The number of branches may increase/decrease depending upon the satisfactory services of the vendor during the period of empanelment / contract i.e. **three years**. **The contract may be split**. The decision of the Bank in this regard will be final.

**2. TERMS OF EXECUTION OF WORK & LIQUIDATED DAMAGES**

The annual maintenance contract would commence from the 7th day of acceptance of the work order issued by the Bank. Any delay in completion of the work over the stipulated period will attract penalty of 0.5% of the contract value per week subject to maximum of 5% of the contract value. Bank reserves its right to recover these amounts by any mode such as adjusting from any payments to be made by the Bank to the company. Liquidated damages will be calculated per week basis. Part of week will be treated as a week for this purpose. However, the Bank may condone the liquidity damages for delay of less than a week.

**3. ELIGIBILITY CRITERIA FOR SHORT-LISTING**

<b>Sr No</b>	<b>Criteria</b>	<b>Documents required:</b>
(a)	The firm should have experience of successfully undertaking similar work for RBI/ Public Sector and Commercial Banks. To prove that CCTV OEM is an Established and Proven OEM in India, IP Cameras OEM should have supplied at least 5,000 IP CCTV cameras during the last 03 years to any State Govt. / Central Govt. / Public sector undertaking in India, as of bid submission date. P.O. copies are to be submitted along with supply proof.	Purchase order copies issued by the organizations since 01.04.2019 and a statement showing each year execution of contract and Certificate/letter stating about the performance of CCTV Cameras, NVR, Switches & Monitors, Security & Fire alarm systems supplied.
(b)	Firm must have average annual turnover of Rs. 50.00 LAKH during the last three years, ending 31.03.2022, 31.03.2023 & 31.03.2024	Audited Profit & Loss Account, Balance Sheet and Turnover Certificate from the Auditor for 31.03.2022, 31.03.2023 & 31.03.2024
(c)	Vendors must be in business of electronic security equipment for the last 5 years. The OEM should not be banned/debarred/blacklisted by any government/ institution globally. The OEM must submit the self-declaration regarding the same. OEM of the equipment/ solution shall have a positive Net Worth during the last 3 years.	OEM & Dealer/Bidder all relevant certificates need to be submitted.
(d)	The vendor must meet the tech specification	Refer Annexure-II.
(e)	Sales Volume of electronic security equipment during the last FY must not be less than Rs. 50.00 Lakh.	CA Certificate certifying sale of electronic security equipment of not less than Rs. 50.00 Lakh

(f)	OEM/ Vendor should have service set up in Chhattisgarh and should be able to cover RAIPUR region.	List of service set ups should be submitted.
(g)	Qualified Engineers / technicians with Degree/ Diploma in Engineering.	Minimum 10 qualified Engineers/ technicians should be available with the Company. Names and qualifications should be submitted.
(h)	OEM to have its valid local GST Certificate. OEM Should be ISO 9001, ISO 14001, ISO 27001, CMMI 5 Certified Company	Valid copy of certificate to be submitted.
(i)	OEM should have been established in India at least for 10 years, its presence should be supported with brand registration certificates like TM, COI, etc. OEM should have a manufacturing facility in India for 5 years to support Make in India. OEM should have listed with the Ministry of Skill Development & Entrepreneurship/National Skill Development Corporation (NSDC) to provide skilled manpower through their SI/Self to cater to buyer requirements.	Supporting documents need to submit.

**Note: Other eligibility criteria:**

- (i) The Bidder/OEM should not have been blacklisted by any PSU banks/ Govt. Organizations.
- (ii) If the service provider fails to deliver the services within the stipulated time schedule or the extended date communicated by the Bank, It will be a breach of contract.
- (iii) On receipt of complaint / call to service provider from any branch of RAIPUR Zone, the service provider must send their representative within 24 hours of the complaint, else a penalty of Rs.100 per day on the bill would be applied.
- (iv) Service providers shall be fully responsible for the manufactures warranty in respect of proper design, quality and workmanship of all equipment's, accessories etc. of the AMC services provided.
- (v) The Bidder/ OEM should have running successful contract of AMC/ Empanelment at minimum **three nationalized banks / Govt. Sector**. Proof of the same is to be attached.
- (vi) The Bidder/ OEM should have to undertake the AMC of existing electronic security systems **on as is and where is basis**.
- (vii) All personnel deployed for executing the services should be certified by police and the vendor shall submit the police verification report before commencement of work.
- (viii) The Bank reserves its right to cancel the order in the event of delay in supply / AMC of services.

**4. LOCATIONS TO BE COVERED**

The Annual maintenance contract of the electronic security and Fire equipment is to cover **all the branches under RAIPUR Zone (Located in various districts of Chhattisgarh State)** and installations of new electronic security equipment at various old and new branches as per requirements.

## 5. TWO PART OFFER AND PRE BID MEETING

The offer will be in two parts; **Technical Offer and Commercial Offer**. Both the parts must be submitted at the same time but **in separate sealed covers**, giving full particulars, addressed to the Bank of Maharashtra, and duly super-scribed on each envelope **"Technical Bid for Security & Fire Alarm System, CCTV Systems,"** and **"Financial Bid for Security & Fire Alarm System, CCTV Systems "**on or before **15.07.2024 upto 1500 hrs.** **A Pre Bid Meeting will be organized on 28.06.2024 at 1500 hrs for clarification of queries.**

## 6. EARNEST MONEY DEPOSIT

**Earnest Money Deposit of Rs. 20,000.00(Rupees Twenty Thousand only)**, in the form of a Demand Draft / Pay order issued by a scheduled commercial Bank **favoring Bank of Maharashtra, RAIPUR Zonal office, Payable at RAIPUR** must be submitted along with the technical bid. This amount will be forfeited if the vendor withdraws his bid during the period of bid validity or refuses to accept purchase order or having accepted the purchase order, fails to carry out his obligations mentioned therein. **Bank Guarantee In lieu of Earnest Money Deposit will not be accepted.** No interest will be payable on the Earnest Money Deposit amount. The Earnest Money Deposit must be submitted along with technical offer. In the event of non-submission of the Earnest Money Deposit money of Rs. 20,000.00, the proposal will be rejected. The Earnest Money Deposit will be refunded to the offer only after the completion of the bid process.

## 7. VALIDITY PERIOD OF THE OFFER

The offer should remain valid for a period of **One year** from the date of first work order.

## 8. TECHNICAL OFFER (TO)

(a) The technical offer (TO) should be completed in all respects and contain all information required in the document. It should not contain any price information. However, TO should confirm that all required particulars have been quoted in the Commercial Offer, without showing the actual amounts in the Technical Offer (TO). Any system supplied free along with the offer or at a cost must be indicated separately and specifically.

(b) It is mandatory to submit the technical details in the prescribed Proforma (Annexure-II) duly filled in, along with the offer. In case of non-submission or partial submission of technical details, the Bank, at its discretion, may not evaluate the offer. The T.O. must be submitted in an organized and structured manner. No brochures/ leaflets etc. should be submitted in loose form.

(c) The T.O. should comprise of the following:

- (i) Covering letter on the prescribed format (Annexure-I).
- (ii) Technical specifications complete with all the columns filled.
- (iii) Unpriced version of Bill of Material/ Indicative Price Bid.
- (iv) Annexure-IV duly filled in with photocopies of required certificates/documents/proof / P&L & Balance sheets, Copies of order executed etc.
- (v) Documentation (Product brochures, leaflets, manuals, etc.)
- (vi) Details of three reference sites.

- (vii) Earnest Money Deposit of Rs.20,000.00, in the form of a Demand Draft/Pay Order issued by a Scheduled Commercial Bank Favoring Bank of Maharashtra, RAIPUR Zonal Office, payable at **RAIPUR**.
- (vii) Vendors profile.
- (viii) Declaration.

## **9. PRICE COMPOSITION**

The price quoted should be only in Indian Rupees and inclusive of following:

- (i) Cost of the equipment's and other components.
- (ii) All taxes, duties and levies (except Octroi, which will be at actual)
- (iii) Transportation, freight and forwarding charges to respective sites.
- (iv) Insurance to cover the equipment from transit period till installation.
- (v) Prices, which are not quoted as above, will be rejected.
- (vi) GST as applicable will be exclusive of price quoted.

## **10. NO ERASURES OR ALTERATIONS**

Technical / Commercial details must be completely filled up and Hand written details are not allowed. The corrections or alterations, if any, should be authenticated. In the case of the corrections / alteration are not properly authenticated, the offer will be rejected.

## **11. NO PRICE VARIATIONS**

The Commercial Offer shall be on a fixed price basis. No upward revision in the price would be considered on account of subsequent increases in Government taxes, customs duty, Excise Tax, Sales Tax, etc. However, if there is any reduction on account of Government levies / taxes, during the offer validity period, the same shall be passed on to the Bank.

## **12. PRICE FREEZING**

The price finalized shall remain valid for a period of **One year** from the date of such finalization with the option to the Bank to review the price if necessary.

## **13. OPENING OF OFFERS**

The technical bids will be opened on **16.07.2024 at 1200 Hrs** in the presence of the offerer /their authorized representatives. No separate intimation will be given in this regard to the Vendors for deputing their representatives.

## **14. EVALUATION PROCESS**

Technical Offers will be evaluated on the basis of compliance with eligibility criteria, technical specification, other terms and conditions stipulated in the tender document. **Financial Offers of only those Vendors who qualify in the technical evaluation will be opened.**

## **15. NO COMMITMENT TO ACCEPT LOWEST OR ANY TENDER**

The Bank shall be under no obligation to accept the lowest or any other offer received in response to this tender and shall be entitled to reject any or all offers without assigning any reasons whatsoever.

## **16. SPLITTING OF ORDER**

The Bank reserves its right for splitting the quantity between two vendors. The splitting of the order will be in 60:40 ratio, provided the L2 vendor agrees to match the prices quoted by L1 vendor and agrees for all the terms and conditions. In case L2 vendor is not willing to match L1 price, Bank will call L3, L4 vendors etc., in that order to step into the shoes of L2 vendor. In the event of L3, L4 etc., vendor not matching the L1 price the entire quantity will be awarded to L1.

## **17. RIGHT TO ALTER QUANTITIES**

The Bank will be free to either reduce or increase the quantity to be purchased on the same terms and conditions. The Bank reserves the right to alter quantities. The Bank also reserves the right to place further/repeat order on same terms and conditions within a period of 12 months.

## **18. ORDER CANCELLATION**

If the vendor fails to deliver and / or install the equipment within the stipulated time schedule or the extended date communicated by the Bank, it will be a breach of contract. The Bank reserves its right to cancel the order in the event of delay in delivery / installation / commissioning of equipment.

## **19. PERFORMANCE BANK GUARANTEE**

Successful vendor(s) should produce a Performance Bank Guarantee for a period of three years from a Public Sector Bank equal to 10% of the total cost and the same may be renewable for further period as per requirements. During defect liability period (warranty period) vendor should attend to all repairs / defect / replacement of spare parts free of cost. Failure on the part of the vendor to attend the defects within a reasonable period, Bank on its own will get defects rectified through another Bidder/ OEM at the risk and cost of vendor.

## **20. GUARANTEES**

The equipment delivered to the Bank should be brand new, including all components. The vendor should also guarantee that all the equipment / components supplied by the vendor is licensed and legally obtained.

## **21. AVAILABILITY OF SPARES**

Spares for the product offered should be available for at least 05 years.

## **22. WARRANTY**

The offer must include comprehensive on-site warranty of **Two-year from the date of installation and commissioning of the surveillance systems.** Vendors shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship of all equipment, accessories, etc. covered by the offer. Vendor must warrant all equipment, accessories, spare parts, etc. against any manufacturing defect during the warranty period. During the warranty period, vendor shall maintain the surveillance systems and repair / replace all the defective components at the installed site, at no additional charge to the Bank.

### **23. MAINTENANCE STANDARD EXPECTED DURING WARRANTY**

The vendor should ensure that the surveillance system reported Breakdown / malfunctioning on any working day is set right by on the same day and in no case later than the next working day. In case, equipment cannot be repaired within the stipulated period, the vendor should provide replacement of the same till the machine is returned duly repaired.

### **24. ANNUAL MAINTENANCE CONTRACT**

Should the Bank decide to do so, the vendor is expected to maintain the supplied surveillance equipment for at least Three years after the expiry of warranty period. **Comprehensive onsite maintenance charges, for the post warranty period, must be quoted in rupees per machine per year, in the Commercial Offer.** The vendor is expected to ensure same maintenance standards as during warranty period. At the same time, the vendor is also expected to make available the spare parts for the systems for at least three years after the expiry of warranty period. Thereafter, vendor will give at least twelve months' notice prior to discontinuation of support services. If any of the peripherals, component etc. are not available or difficult to procure or if the procurement is likely to be delayed, the replacement shall be carried out with equipment of equivalent capacity or higher capacity at no additional charges to the Bank, during the warranty period and AMC.

**25. No reimbursement of cost of any type on any account will be paid to persons or entities submitting their bid.**

### **26. EVALUATION PROCESS**

Offers (Tenders) will be evaluated in the following

- (i) **Stages: 26.1 Stage I** Incomplete Offers, i.e., offers not accompanied by the mandatory documents as mentioned above, cost of RFP Forms and EMD shall be rejected.
- (ii) **26.2 Stage II** Offers will be evaluated against the stipulated minimum eligibility criteria based purely on valid proof documents submitted by the Service Provider as per **Annexure-IV**. Offers not complying with the eligibility criteria will be rejected. Scoring of marks will be based on Annual Turnover, Number of nationalized Bank, Training infrastructure, Training set up, Office in RAIPUR, ISO certification, and other pre-qualification criterion prescribed in the Terms and Conditions of the contract. **The firm/Bidder/ OEM which has secured Seventy-Five (75) out of One hundred (100) marks will be considered as technically qualified as per Annexure II.**
- (iii) **26.3 Stage III** Short-listing of supplier(s) based on satisfactory feedback from reference sites.



(iv) **26.4 Stage IV** Opening the Price bids of the short-listed firm(s) as per Price bid format enclosed at **Annexure-III**. The financial bids of all the technically qualified firms/agencies/bidders will be opened for **financial evaluation**. The work will be awarded to the **L-1 Bidder**. In case the financial bid of more than one Bidder/OEM is same as L-1, then the work will be awarded to the Bidder which gets the maximum marks in Technical evaluation. The performance of the Service Provider and Supervision of the Bidder will be observed for 3 months and if found not up to the desired satisfaction, the bank will have the sole right to terminate contract and go for L2 (similarly L3, L4).

## **27. Certificate for Blacklisting**

The Bidder & OEM should provide Undertaking as per Annexure VII.

## **28. CLARIFICATIONS**

For any clarifications, contact our Office on the below mentioned address or telephone.

**Naveen Tejwani, 0771-4265605**  
**Manager,**  
**Bank of Maharashtra, Zonal Office – RAIPUR,**  
**1<sup>st</sup> Floor, Chawla Complex, Sai (Devendra) Nagar,**  
**RAIPUR - 492001.**

## **29. PAYMENT TERMS**

The terms of payment are as under:

- (i) No advance payment against AMC work order.
- (ii) Payment of AMC will be made on Quarterly basis on conforming the Quarterly bill and serviceability of equipment maintained by the Zonal Office within 7 days of submission of bills to Zonal Office duly verified by the respective department.
- (iii) Payment for the equipment either replaced or newly installed will be made by respective branch/office as per work completion and after approval of competent authority within 7 days of submission of bill.

**30. Personnel deployed, must be issued with Identity Cards duly authenticated by the Executive/Officer of the company and the change in personnel deployed should be with prior permission of the Bank.**

## **31. FORCE MAJEURE.**

If at any time during the period of the contract the performance in whole or in part by either party or any obligation under the contract shall be prevented or delayed by reasons of any war, hostilities, acts of god, Public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics etc. then, provided notice of the happening of the any such events is given by either party to the other within 15 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate their contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance. The whole or any part of the Party's obligations under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If force majeure event continues beyond the period of three (3) months the parties shall hold consultation to resolve the problem satisfactorily.

32. **Defect Rectification Time Line.** The time line for defect rectification at branches are as follows. If the vendor fails to rectify the defect within the stipulated time frame, penalty clause will be applied as per the tender document Page 3 para 2.

Sr. No.	Category of Branch	Time Frame for Defect Rectification
(a)	Metro / Within RAIPUR City limits	Within 24 Hrs
(b)	Urban / Semi-Urban / Rural Branches	Within 48 Hrs

(Letter to the Bank on the vendor's letterhead)

To,  
**The Zonal Manager  
Bank of Maharashtra  
Zonal Office  
1<sup>st</sup> floor, Chawla Complex, Sai (Devendra) Nagar,  
RAIPUR - 492001.**

Dear Sir,

Sub: **Your RFP for Security & Fire Alarm Systems and CCTV systems dated \_\_\_\_\_**

With reference to the above RFP, having examined and understood the instructions, terms and conditions forming part of the RFP, we hereby enclose our offer for the supply of the equipment as detailed in your above referred RFP.

We confirm that we have not been disqualified by any PSU bank for supply and maintenance of surveillance systems.

We further confirm that the offer is in conformity with the terms and conditions as mentioned in the RFP and all required information as per Annexure I, II, III, IV, V, VI, VII & VIII.

We also confirm that the offer shall remain valid for Three year from the date of first purchase order.

We hereby undertake that **the equipment to be delivered to the Bank will be brand new including all peripherals and components and that the equipment and its parts are licensed and legally obtained.**

We hereby undertake to provide Performance Bank Guarantee equivalent to 10% of the value of the Invoice amount with a validity period of three years which may be renewable for a further period as per requirement.

OR

The Bank may retain 10 % of the contract amount to be released after three years renewable for a further period as per requirement.

We understand that the Bank is not bound to accept the offer either in part or in full and that the Bank has right to reject the offer in full or in part without assigning any reasons whatsoever.

We enclose Demand Draft/Pay Order for Rs. ----- favouring Bank of Maharashtra and payable at RAIPUR, towards Earnest Money Deposit, details of the same are as under:

- Demand Draft / Pay Order No. :
- Date of Demand Draft / Pay Order :
- Name of Issuing Bank :

Yours faithfully,

**Authorised Signatories**

(Name & Designation, seal of the firm)

Date:

**EMPANELMENT OF FIRMS / SUPPLIERS FOR CCTV CAMERAS, BURGLAR AND FIRE ALARM SYSTEMS IN THE BRANCHES OF RAIPUR ZONE**

**Technical Evaluation / Technical Offer**

The evaluation will be done on the following two parameters:

- 1. Financial parameters: 25 Marks**
- 2. Technical parameters: 75 Marks**

**Financial Parameters:**

<b>Sr. No.</b>	<b>Parameters</b>	<b>Max. Marks</b>	<b>Marks</b>		<b>Self-Assessment Marks</b>
i.	Average Annual Turnover (TO) during last 3 years – 2021-22, 2022-2023 & 2023-2024	5	Less than <b>Rs. 50.00 Lakhs</b>	0	
			Above Rs.50.00 Lakhs, 1 mark for each 50 Lakh above <b>Rs. 50.00 Lakh</b> , maximum 5 marks.	5	
ii.	Net worth (NW) of the Company as of 31.03.2024 as per audited Balance Sheet / CA certificate	5	NW less than <b>Rs.50.00 Lakh</b>	0	
			NW above <b>Rs. 50.00 Lakh</b> but less than <b>Rs.2.50</b> crore.	2	
			NW of <b>Rs. 2.50</b> crore & above	5	
iii.	Sales volume of the Surveillance systems for last financial year 2023-24.	5	Less than <b>Rs. 50.00 Lakh</b>	0	
			Above <b>Rs. 50.00 Lakh</b> but less than <b>Rs.2.50</b> crore	2	
			More than <b>Rs 2.50</b> crore	5	
iv.	Work executed since 01.04.2021, (Give the order value, model and equipment in No's model wise)	5	Below 100 systems	0	
			Above 100 systems and less than 500 systems	2	
			More than 500 systems	5	
v.	Net Profit of the last Financial Year – 2023-24 as per audited B/S	5	Below <b>Rs. 05.00 Lacs</b>	0	
			Above <b>Rs.05.00 lacs</b> but below <b>Rs. 15.00 Lacs</b>	2	
			Above <b>Rs. 15.00 Lacs</b>	5	
	<b>Total (A)</b>	<b>25</b>			

**Technical Parameters:**

Parameters	Max. Marks	Marks		Self-Assessment Marks
No. of years in surveillance systems	15	Minimum 3 years	5	
		Above 3 years, 1 marks for each additional year, maximum 15 marks.	15	
Location for support services office	15	Office - RAIPUR (Area to cover : RAIPUR Zone)	15	
Reference site	15	Minimum 2 Sites	9	
		Above 2 sites ( <b>3 marks for additional site , maximum 15 marks</b> )	15	
Whether the Dealer/ Distributor/OEM is ISO 9001:27001, ISO 9001:14001 certified for supplying surveillance systems	10	ISO Certified	10	
		Not Certified	0	
No. of qualified engineers on all India level	15	Minimum 10 qualified engineers	10	
		Above 10 qualified engineers ( <b>2 mark for additional 5 engineers</b> )	15	
Whether Company is manufacturer or distributor/dealer	5	Distributor/Dealer	3	
		Manufacturer	5	
Total (B)	<b>75</b>			
Grand Total (A+B)	100			

**Note:** In order to assist the process of evaluation, vendors are required to submit documentary evidences to support their claims of these parameters. **If the vendor does not provide any of these details no marks will be given to the vendor in evaluation process. Minimum qualifying marks is 75. The Performance of the surveillance systems will be evaluated by the Committee. For short listing vendors, the top 3 vendors who has scored highest marks will be taken into consideration. Though the vendor obtains the qualifying marks of 75, they may not be short listed if the marks do not fall within the top 3 highest scoring marks.**

**Annexure – III**

**EMPANELMENT OF FIRMS / SUPPLIERS FOR CCTV CAMERAS, SECURITY AND FIRE ALARM SYSTEMS IN THE BRANCHES OF RAIPUR ZONE**

**Financial Composition/ Commercial Offer**  
**Burglar /Security Alarm System / New Installation (FY- 2024-25)**

<b>Sr. No.</b>	<b>Items</b>	<b>Brand /Make/Model No</b>	<b>Amount</b>
1	<b>4 Zone control Panel</b> Microprocessor Based Technology with inbuilt Auto-dialer, ERTL Tested & ISO 9001:2008 Certified		
2.	<b>6 Zone control Panel</b> Microprocessor Based Technology with inbuilt Auto-dialer, ERTL Tested & ISO 9001:2008 Certified.		
3.	<b>9 Zone control Panel</b> Microprocessor Based Technology with inbuilt Auto-dialer Make:, ERTL Tested & ISO 9001:2008 Certified		
4.	<b>Wired Panic Switch</b>		
5	<b>Wireless Panic Switch</b>		
6	<b>Receiver assembly</b> for remote Panic Switch		
7.	<b>Auto-dialer</b> 30 line		
8.	<b>Magnetic Door Sensor</b> – 4 wires Heavy Duty		
9.	<b>Shutter sensor - 4 wire</b> Heavy Duty		
10.	<b>High Density External Hooters</b> – Branded with Metal Box		
11.	<b>Low Density Internal Hooters</b> – Branded with Metal Box		
12.	<b>PIR Sensor</b>		
13.	<b>Battery 12 Volts 7 AH</b> – EXIDE make / Amaron or equivalent		
14.	0.5mm/ <b>2 Core copper wire</b> ISI mark – ISI mark		
15.	0.5mm / <b>4 Core copper wire</b> , ISI Mark		
16.	PVC Conduit Pipe Per Meter		
17.	Casing Patti Per Meter		
	<b>TOTAL Charges</b>		
18	Other Taxes / Charges		
19	Installation Charge for New Branches if any		

20	AMC (Comprehensive) rates after 1 year warranty period		
21	AMC (Comprehensive) rates of existing burglar Alarm and Security Sensors		
22	Cash Bag Alarm Device (with remote & Chargeable battery)		
23	Buy back schemes for Alarm Panel (give separate quotes for each item)		

**Fire /Smoke Detection Alarm System / New Installation (FY- 2023-24)**

<b>Sr. No</b>	<b>Items</b>	<b>Brand/Make/ Model No</b>	<b>Amount</b>
1	<b>2 Zone control Panel</b> Microprocessor Based Technology with inbuilt GSM based Auto-dialer, ERTL Tested & ISO 9001:2008 Certified		
2	<b>4 Zone control Panel</b> Microprocessor Based Technology with inbuilt GSM based Auto-dialer, ERTL Tested & ISO 9001:2008 Certified		
3	<b>Ionization / Optical type smoke detector</b> with imported mounting base		
4	<b>Heat Sensor – Agni / Apollo/ System Sensor</b>		
5	High Density heavy duty <b>branded Hooters</b>		
6	<b>Manual Call Points – (Break Glass Switch) Branded</b>		
7	<b>Response indicators – Branded</b>		
8	<b>Battery 12 Volts 7 AH – EXIDE make / Amaron or equivalent</b> s		
9	2 x 1.5mm <b>Armoured Cable with clamp fitting</b> ISI mark per metre.		
10	0.5mm <b>2 Core copper wire</b> ISI mark in PVC conduit pipe / casing patti – ISI mark		
11	<b>TOTAL Charges</b>		
12.	Other Taxes / Charges		
13.	Installation Charge for New Branches If any		
14.	AMC (Comprehensive) rates after 1 year warranty period		
15.	AMC (Comprehensive) rates of existing Fire Alarm and Fire Sensors of mixed makes		
16.	Buy back schemes for Fire Alarm Panel (give separate quotes for each item)		

**CCTV device with recording facility / New Installation (FY- 2024-25)**

Sr.No.	Items	Brand / Make / Model No.	Amount
01.	<b>8 CH NVR – SPECIFICATION</b> 8 Channel NVR with Temper indication and Surveillance rated IPD with 180 days motion based recording capacity. Apart from NVR, motion based recording and images of 180 days should be available at cloud also (on real time basis).	As per Annexure-VIII	
02.	<b>16 CH NVR - SPECIFICATION</b> 16 Channel NVR with Temper indication and Surveillance rated IPD with 180 days motion based recording capacity. Apart from NVR, motion based recording and images of 180 days should be available at cloud also (on real time basis).	As per Annexure-VIII	
03	IPD 2TB (Surveillance) WD/Seagate or equivalents		
04	IPD 4TB (Surveillance) WD/Seagate or equivalents		
05	IPD 6TB (Surveillance) WD/Seagate or equivalents		
06	IPD 8TB (Surveillance) WD/Seagate or equivalents		
07	2 MP IP Camera dome - <b>SPECIFICATION</b>	As per Annexure-VIII	
08	2 MP IP Bullet Outdoor 50 mtrs - <b>SPECIFICATION</b>	As per Annexure-VIII	
09	2 MP IP Camera bullet (1080p), Vari-focal - <b>SPECIFICATION</b>	As per Annexure-VIII	
10	2 MP WI-Fi Camera with 128 GB Card or equivalents		
11	CCTV 3+1 cable		
12	CCTV cable (RG6)		
13	Power Supply 1 Amp		
14	Power supply 2 Amp		
15	Power supply 5 Amp		
16	Power supply 10 Amp		
17	VGA Cable per meter		
18	HDMI cable per mtr		
19	4 Port PoE Giga Switch - <b>SPECIFICATION</b>	As per Annexure-VIII	
20	8 Port PoE Giga Switch - <b>SPECIFICATION</b>	As per Annexure-VIII	
21	16 Port PoE Giga Switch- <b>SPECIFICATION</b>	As per Annexure-VIII	
22	24 Port PoE Giga Switch - <b>SPECIFICATION</b>	As per Annexure-VIII	
23	Cat 6 Cable ( Per Mtr) - <b>SPECIFICATION</b>	As per Annexure-VIII	



24	Wireless mouse. Reputed make		
25	LED Monitor 22" with wall mount		
26	LED Monitor 32" with wall mount		
27	LED Monitor 40" with wall mount		
28	NVR rack, Wall Rack, Size : <b>4U</b> with all accessories		
29	NVR rack, Wall Rack, Size : <b>6U</b> with all accessories		
30	Installation/ Shifting for Complete System		
31	Buy back schemes for CCTV cameras & accessories (give separate quotes for each item)		
32	AMC rates of existing CCTV system of mixed makes- 04/08/16 Channel CCTV/NVR System AMC including 04 Mandatory Quarterly Preventive Maintenance visits and all call / complaint to be covered under AMC Charges. All the accessories / spare parts / sensors / panel etc. accessories charges will be borne by bank as per quoted rates; accepted by the bank.		
	Total		

**Annexure-IV**

**EMPANELMENT OF FIRMS / SUPPLIERS FOR CCTV CAMERAS, SECURITY AND  
FIRE ALARM SYSTEMS IN THE BRANCHES OF RAIPUR ZONE**

**Vendor's Profile**

1	Name of Organization	
2	Address	
3	No. of Offices (own) in RAIPUR and their addresses	
4	Year of Establishment	
5	No. of years in business of Electronic Security Products	
6	Status of the firm (Whether Pvt. Ltd. Company / Public Ltd. Company / Partnership firm / Proprietorship firm)	
7	Name of Directors / Partners / Proprietor	i) ii) iii) iv) v)
8	Whether registered with the Registrar of Company / Registrar of firms. If so, mention number and date.	
9	Name and address of Bankers	i) ii)
10	Whether registered for Sales tax / Vat tax purposes. If so, mention number and date. Also furnish copies of sales tax clearance certificate.	
11	Whether assessed for Income Tax. If so mention Permanent Account Number. Furnish copies of Income Tax clearance certificate.	
12	If the company / firm a manufacturer or Dealer / Distributor of CCTV product.	
13	If the company / firm is a Dealer / Distributor? a) Give the Name of manufacturer(s) and their country. b) If the manufacturer offices are located in India, give their address in India and telephone No. c) Enclose Certified True Copies of the current dealership Certificate given by the manufacturers.	
14	Warranty period.	
15	Give details of the after-sales service facility provided by your company / firm and / or the manufacturers.	
16	What are your fields of activities? Mention the field on preference basis in the order of annual turnover.	i) ii) iii)
17	No. of years' experience in installation and maintenance of Security electronic systems such as CCTV, Fire and Security Alarms, etc.	
18	If you are registered in the panel Banks and provided service and maintenance for more than two years.	

19	Name of Bank/s	Year of installation	Nature of work done	Value of order	Contact person & Tel. Nos. of Bank
a)					
b)					
c)					
d)					
e)					
20	Brand(s) of NVR offered				
21	Brand(s) of cameras offered				
22	Product Literature/Certifications enclosed			YES / NO	
23	Warranty Period (Free replacement / repair of all components / entire system)			YES / NO	
24	Whether prepared to undertake AMC for at least 3 years			YES / NO	
25	Whether prepared to give live demo at our office at our convenience?				
26	Any other details				

**Note: Wherever copies are required to be furnished, these are to be certified copies preferably by concerned agencies or a Govt. Officer.**

**STAMP OF COMPANY  
AUTHORISED SIGNATORY.....  
NAME  
DESIGNATION**

**Reference Site Details**

<b>a) Name of the Company</b>	
Address of the Company	
Name, designation of contact person with telephone no. and E-mail ID	Name : Designation : Landline No.: Cell No. : E-mail ID :
Details of surveillance systems supplied in last one year (Ref.no, date of order and quantity with photo copy of orders)	

<b>b) Name of the Company</b>	
Address of the Company	
Name, designation of contact person with telephone no. and E-mail ID	Name : Designation : Landline No.: Cell No. : E-mail ID :
Details of surveillance systems supplied in last one year (Ref.no, date of order and quantity with photo copy of orders)	

<b>c) Name of the Company</b>	
Address of the Company	
Name, designation of contact person with telephone no. and E-mail ID	Name : Designation : Landline No.: Cell No. : E-mail ID :
Details of surveillance systems supplied in last one year (Ref.no, date of order and quantity with photo copy of orders)	

**AUTHORISED SIGNATORY**

**MANDATORY QUALITATIVE REQUIREMENT OF THE FIRM**  
**(Proof of the same is to be enclosed in Technical bid)**

1. The firm / Bidder/ OEM should be in the field of installing and maintaining electronic security equipment for not less than **five years**.
2. The firm / Bidder/ OEM must have installed and maintained electronic security equipment in Nationalized banks during the last three years. (The certificate of efficiency and after sale service etc. from the banks where this equipment's are installed must be submitted).
3. The firm / Bidder/ OEM should have their own office in RAIPUR. Technical team should be available locally for support i.e. within 2 hrs of call. The company should have effective machinery for supervision to exercising better command and control over their field staff, service engineers and technicians. The staff, service engineers and technicians of the company should be technically qualified holding necessary technical degree / diploma / certificate in the equipment which they are dealing.
4. Bidder/ OEM/firm should be empaneled with Nationalized Banks and their products certified / tested by Department of Electronics, Government of India. The firm should be ISO 9001:27001, ISO 9001:14001 compliant.
5. The Bidder/ OEM/firm must be registered under Sales Tax & Central Excise Department, Provident Fund Act, ESI Act and Shops and Establishment Acts also. Copy of registration papers along with code number allotted to the Bidder/ OEM / company should be furnished.
6. The Bidder/ OEM/firm should have annual turnover of **Rs 50.00 Lakhs** in Supply/Manufacturing/ installation of electronic security equipment. **Copy of balance sheet and profit and loss account should be submitted.**
7. The Bidder/ OEM/firm should have running contracts/empanelment at least in **03 nationalized Banks** during the last three years.
8. The Bidder/ OEM/firm must have an effective infrastructure and adequate resources for training, Research & development.
9. The Bidder/ OEM/firm should have streamlined procedure for the verification of antecedents of their field staff, service engineers and technicians from the civil / police authorities.

## **DECLARATION**

1. I / We have read the instructions appended to the Performa and I / We understand that if any false information is detected at a later date, any future contract made between ourselves and Bank of Maharashtra, on the basis of the information given by me / us can be treated as invalid by the Bank and I / We will be solely responsible for the consequences.
2. I / We agree that the decision of Bank of Maharashtra in selection of Vendors will be final and binding to me / us.
3. All the information furnished by me hereunder is correct to the best of my knowledge and belief.
4. I / We agree that I / We have no objection if enquiries are made about the work listed by me / us in the accompanying sheets.
5. I / We understand that the quantity of CCTV Cameras, NVR and Monitors and all electronic security equipment, is approximate only and it may decrease or increase from the requirement quoted.

**SIGNATURE:**

**NAME & DESIGNATION:**

**SEAL OF THE FIRM / COMPANY:**

**PLACE:**

**DATE:**

**Undertaking for Blacklisting**

It is further certified that the company (M/S.....) has never been blacklisted/banned/debarred/delisted by any Govt. Department/ Statutory body like Commissions of the Govt of India, Central / State Govt / Autonomous bodies, Public Sector enterprises/Banks, any other government or semi government body. The owner / director/ proprietor has never been fined for violation of any statutory laws / acts/ rules of the Govt of India/ state govts/ statutory bodies etc.

I also certify that the above information is true and correct and in any case, at any stage of contract if it is found that any details provided above is incorrect the executed contract with our firm/company & any other contract given to the above firm/company may be summarily terminated and bank will take any necessary legal action in this regard.

Date:

Place:

Signature:

Name:

Designation

Contact No.

## 8 CHANNEL NVR

Feature	Specification	Compliance Yes/No	Remarks
Processor	Dual-core embedded processor		
IP Camera Input	8 channel		
Recording Resolution	8MP/ 6MP/ 5MP/ 4MP/ 3MP/ 1080P/ 1.3MP/ 720P etc		
Operating System	Embedded LINUX		
Two-way Talk	1 channel Input, 1 channel Output, RCA		
User Interface	GUI		
Video Output	1 HDMI, 1 VGA		
Compression	Instastream/H.265/Smart H.264+/H.264		
Video Resolution	HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720 VGA: 1920×1080, 1280×1024, 1280×720		
Network Bandwidth	200 Mbps for access, 200 Mbps for storage and 96 Mbps for forwarding		
Decoding Capacity	8 channels@1080P(30fps)		
Hard Disk	2 SATA III ports, up to 10TB Each		
Video Display Split	1/4/8/9		
Perimeter Protection by Camera Performance	8 channels		
AI Search	Search for pictures by channel, time and event type		
SMD Plus by Camera Performance	8 channels		
AI Search	Search by target classification (human, vehicle)		
Motion Detection	MD Zones: 396(22×18).		
Video Loss	Supports		
Camera Blank	Supports		
Alarm Input	4 Channel		
Alarm Output	2 Channel		
Audio Input	1 channel, RCA connector		
Audio Output	1 channel, RCA connector		
Interface Ports	2 USB Ports (1 USB2.0, 1 USB3.0)		
Smart Phone	iPhone, iPad, Android Phone		
Trigger Events	Recording, PTZ, Tour, Video Push, Email, Snapshot, Buzzer & Screen tips		
Recording Mode	Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Tampering, Video Loss), Stop		
Search Mode	Time/Date, Alarm, MD & Exact search (accurate to second), Smart search		
Disk Group	Support		
General Alarm	Motion detection; privacy masking; video loss; PIR alarm; IPC alarm		
Anomaly Alarm	Camera offline; storage error; full storage; IP conflict; MAC conflict; login lock; network security anomaly		



<b>Intelligent Alarm</b>	Perimeter protection; SMD; people counting; heat map		
<b>Alarm Linkage</b>	Record; snapshot; IPC external alarm output; buzzer; log; preset; email		
<b>Playback Function</b>	Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, Digital zoom		
<b>Backup Mode</b>	USB Device/Network		
<b>Max Remote Access</b>	128 users		
<b>Record Interval</b>	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec		
<b>Ethernet</b>	1 RJ-45 port (10/100M/1000Mbps)		
<b>Protocols</b>	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, IGMP, ARP, SSL, ANR, RTP, QoS, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, SNMP, FTP, IP Search, ONVIF 2.4, SDK, CGI Conformant		
<b>Power Supply</b>	DC12V/4A		
<b>Power Consumption</b>	<6.9W (Without HDD)		
<b>Working Temp</b>	-10 ~+55°C / 10~90%RH / 86~106kpa		
<b>Dimensions</b>	375mm x 281.5mm x 56mm		
<b>Weight</b>	1.6kg (without HDD)		

### 16 CHANNEL NVR

Feature	Specification	Compliance Yes/No	Remarks
Processor	Dual-core embedded processor		
Operating System	Embedded LINUX		
Video Recording	8MP/6MP/5MP/4MP/3MP/1080P/ 720P/ D1&etc.		
IP Camera Input	16 channel		
Two-way Talk	1 channel Input, 1 channel Output, RCA		
User Interface	GUI		
Video Output	1 HDMI, 1 VGA		
Compression	H.265, H.264+		
Encode Strategy	Instastream		
Total Bandwidth	160Mbps Incoming/ 160Mbps Outgoing bandwidth		
Video Resolution	1920×1080, 1280×1024, 1280×720, 1024×768		
Hard Disk	2 SATA III ports, up to 10TB Each		
Video Display Split	1/4/8/9/16		
OSD	Camera title, Time, Camera lock, Motion detection, Recording		
Bit Rate	16Kbps ~ 20Mbps Per Channel		
Motion Detection	MD Zones: 396(22×18).		
Video Loss	Supports		
Camera Blank	Supports		
Smart Phone	iPhone, iPad, Android Phone		
Trigger Events	Recording, PTZ, Tour, Video Push, Snapshot, and Screen Tips		
Recording Mode	Manual, Schedule (Regular (Continuous), MD, Stop		
Search Mode	Time/Date, MD & Exact search (accurate to second)		

Playback	Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, Digital zoom		
Backup Mode	USB Device / Network		
Interface Ports	1 HDMI, 1 VGA, 2 USB Ports(1 Rear USB2.0, 1 Front USB2.0)		
Record Interval	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec		
Max User Account	128 users		
Ethernet	1 RJ-45 port (10/100/1000Mbps)		
Protocols	HTTP/HTTPS, TCP/IP, IPv4/IPv6, RTSP, UDP, NTP, DHCP, DNS, IP Filter, DDNS, IP Search, ONVIF 2.4, SDK, CGI		
Power Supply	DC12V/4A		
Power Consumption	<3W (without HDD)		
Working Temp	-10 ~+55°C / 10~90%RH / 86~106kpa		
Dimensions	375mm x 281.5mm x 56mm		
Weight	1.6kg (without HDD)		

## 2MP FIXED DOME CAMERA

Feature	Specification	Compliance Yes/No	Remarks
Image Sensor	1/2.8" 2Megapixel PS CMOS Image Sensor (0.9071 cm)		
Minimum Illumination	0.002 Lux@F1.6 (Color, 30IRE) 0.0002 Lux@F1.6 (B/W, 30IRE) 0 Lux (IR on)		
Effective Pixels	1920 (H) ×1080 (V)		
Shutter Speed	Auto/Manual, 1/3~1/100000s		
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom		
S/N Ratio	>56dB		
RAM/ROM	256MB/ 128MB		
Lens	3.6mm		
Lens Type	Fixed Focal		
Iris Type	Fixed		
Mount Type	M12		
Max. Aperture	F1.6		
DORI Distance	3.6mm- 55.2m (Detect) 22.1m (Observe) 11.0m (Recognize) 5.5m (Identify)		
Noise Reduction	3D-DNR		
Gain Control (AGC)	Auto/Manual		
Video Compression	H.265/H.264+/H.264/H.264H/H.264B/MJPEG		
Encode Strategy	Instastream		
Motion detection	OFF/ON (4 areas, rectangular)		
Angle of View	3.6mm: Horizontal:87°; vertical: 46° ; diagonal: 104° ; 2.8mm: Horizontal:106°; vertical: 57°; diagonal: 126° ; 6mm: Horizontal:54°; vertical: 29°; diagonal: 63°		
Back Light Compensation	BLC / HLC / WDR(120dB)		

Video Streaming	Main stream (1920 × 1080@1–25/30 fps), sub stream (704 × 576@1–25/30 fps), third stream (1280 × 720@1–25/30 fps)		
Resolution	1080P (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)		
Privacy Mask	4 areas		
ICR	ICR auto switch		
ROI	Yes (4 areas)		
Mirror	Yes		
Audio Input	1-channel (RCA port)		
Audio Output	1-channel (RCA port)		
Audio Compression	G.711a; G.711Mu; G726		
Alarm IN	1 channel in: 5mA 3V–5V DC		
Alarm Out	1 channel out: 300mA 12V DC		
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps		
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; SSL/TLS; Multicast; ICMP; IGMP; NFS; PPPoE; SNMP; ONVIF (Profile S/Profile G/Profile T); CGI;		
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lock- out; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade		
Smart Detection	Tripwire; intrusion (Recognition of human and vehicle)		
SDK and API	Yes		
Scene Self-adaptation (SSA)	Yes		
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
Ethernet	RJ-45 (10/100Base-T)		
Alarm Event	No SD card; SD card full; SD card error; less service time of SD card (smart card supports); net- work disconnection; IP conflict; illegal access; voltage detection; security exception; motion detection; video tampering; scene changing; input abnormal; intensity change; tripwire; intrusion; SMD		
User Account	20 Users (Total bandwidth: 64 M)		
Smart Phone	iPhone, iPad, Android Phone		
IR	IR Range of 50 Mtr.		
Micro SD Card	FTP, SFTP, Micro SD card 256GB, NAS		
Browser	IE IE8, IE9, IE11, Google Chrome, Firefox		
Operating Temperature	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH		
Storage Temperature	-40°C to +60°C (-40°F to +140°F)		

Power Source	12V DC/PoE (802.3af)		
Power Consumption	<6.9W		
Weatherproof Standard	IP67 & IK10		
Casing	Metal		
Dimension	81 mm × Φ109.9 mm		
Weight	378 g		

## 2 MP FIXED BULLET CAMERA

Feature	Specification	Compliance Yes/No	Remarks
Image Sensor	1/2.8" 2 Megapixel PS CMOS (0.9071 cm)		
Minimum Illumination	0.002 Lux@F1.6 (Color, 30IRE) 0.0002 Lux@F1.6 (B/W, 30IRE) 0 Lux (IR on)		
Effective Pixels	1920(H) x 1080(V)		
Shutter Speed	Auto/Manual 1/3 s–1/100000 s		
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom		
Lens	3.6mm		
ROM & RAM	128MB & 256MB		
S/N Ratio	>56dB		
Mount Type	M12		
Max. Aperture	F1.6		
Iris Type	Fixed aperture		
Lens Type	Fixed focal		
Close Focus Distance	3.6 mm: 1.2m ; 2.8 mm: 0.6m; 6mm: 2.5m		
DORI Distance	3.6mm- 55.2m (Detect) 22.1m (Observe) 11.0m (Recognize) 5.5m (Identify)		
Gain Control (AGC)	Auto/Manual		
Video Compression	Instastream/H.265/H.264+/H.264/H.264H; H.264B; MJPEG		
Angle of View	3.6mm: H: 87°; V: 46°; D: 104°,		
Back Light Compensation	BLC / HLC / WDR(120dB)		
Video Streaming	Main stream (1920 × 1080@1–25/30 fps) sub stream(704 × 576@1–25/30 fps) third stream (1280 × 720@1–25/30 fps)		
Resolution	1080P (1920 × 1080); 1.3MP (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)		
Motion detection	OFF/ON (4 areas, rectangular)		
Privacy Mask	4 areas		
ICR	ICR auto switch		
ROI	Yes (4 areas)		
Noise Reduction	3D-DNR		
Audio Input	1 channel (RCA port)		
Audio Output	1 channel (RCA port)		
Audio Compression	G.711a/ G.711Mu/ AAC/ G.726		
Audio	Built-in Mic		
Alarm IN	1 channels in: 5mA 3V–5V DC		
Alarm Out	1 channel Out: 300mA 12VDC		

Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps		
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; SNMP; ONVIF (Profile S/ Profile G/Profile T); CGI;		
Smart Detection	Tripwire, Intrusion (Recognition of human and vehicle)		
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
Ethernet	RJ-45 (10/100Base-T)		
Video Bit Rate	H.264: 3 Kbps–8192 Kbps; H.265: 3 Kbps–8192 Kbps		
Event Trigger	Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection		
User Account	20 users (Total bandwidth: 64 M)		
Smart Phone	iPhone, iPad, Android Phone		
IR	IR Range of 50 Mtr.		
No of IR LEDs	1		
Micro SD	FTP; Micro SD Card (support max. 512GB); NAS		
Browser	IE IE8, IE9, IE11, Google, Firefox		
Operating Temperature	-40°C to +60°C (-40°F to +140°F)/ less than≤95%		
Power Source	12V DC/PoE		
Power Consumption	< 5.2W		
Weatherproof Standard	IP67		
Casing	Metal		
Dimension	192.7 mm × 70.5 mm × 66.4 mm		
Weight	590g		

## 2 MP VARIFOCAL BULLET CAMERA

Feature	Specification	Compliance Yes/No	Remarks
Image Sensor	1/2.8" 2Megapixel progressive CMOS (0.9071cm)		
Minimum Illumination	0.002 Lux@F1.5 (Color, 30IRE) 0.0002 Lux@F1.5 (B/W, 30IRE) 0 Lux (Illuminator on)		
Effective Pixels	1920 (H) ×1080 (V)		
S/N Ratio	>56dB		
RAM & ROM	512MB & 128MB		
Shutter Speed	Auto/Manual, 1/3~1/100000s		
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom		
Lens	2.7mm~13.5mm Motorized		
Mount Type	φ14		
Max. Aperture	F1.5		

Iris Control	Fixed		
Close Focus Distance	0.8m		
ROI	Yes (4 areas)		
Motion detection	OFF/ON (4 areas, rectangular)		
Image Stabilization	Electronic Image Stabilization (EIS)		
DORI Distance	W- 44.1m (Detect) 17.6m (Observe) 8.8m (Recognize) 4.4m (Identify) T- 144.8m (Detect) 57.9m (Observe) 28.9m (Recognize) 14.8m (Identify)		
Gain Control (AGC)	Auto/Manual		
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)		
Encode Strategy	Instastream, AI Instastream		
Angle of View	Horizontal: 109°–30° Vertical: 56° –17° Diagonal: 137° – 35		
Back Light Compensation	BLC / HLC / WDR(120dB)		
Resolution	1080P (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)		
Video Streaming	Main stream: 1920 × 1080@(1–25/30)fps; Sub stream 1: 704 × 576@(1–25fps)/ 704 × 480@(1–30 fps) Sub stream 2: 1920 × 1080@(1–25/30fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity		
Privacy Mask	4 areas		
ICR	Auto (ICR)/Color/B/W		
Audio	Built-in Mic		
Audio Input	1 channel (RCA port)		
Audio Output	1 channel (RCA port)		
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723		
Alarm IN	1 channels in: 5mA 3V–5V DC		
Alarm Out	1 channels out: 300mA 12V DC		
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps		
OTA (Online Device Upgrade)	Support		
Cloud Health Monitoring System (HMS)	Support		
Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP; ONVIF (Profile S/Profile G/Profile T); CGI;		
Smart Detection	Tripwire, intrusion (support the classification and accurate detection of vehicle and human)		
AI SSA	Yes		

Scene Self-adaptation (SSA)	Yes		
SMD 4.0	Yes		
AFSA	Yes		
Quick Pick	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events		
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
SDK and API	Yes		
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lock- out; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade		
Mirror	Yes		
Ethernet	RJ-45 (10/100Base-T)		
Alarm Event	No SD card; SD card full; SD card error; service life warning (only supported by CP Plus card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; defocus detection; external alarm; SMD; safety exception		
User/Host	20 (Total bandwidth: 64 M)		
Smart Phone	iPhone, iPad, Android Phone		
IR	IR Range of 60 Mtr., Smart IR		
Micro SD	FTP; SFTP; Micro SD card (support max. 256 G); NAS		
Operating Temperature	-30 °C to +60 °C (-22 °F to 140 °F)		
Storage Temperature	-40°C to +60°C (-40°F to +140°F)		
Humidity	Less than 95% RH		
Power Source	12 VDC/PoE (802.3af)		
Power Consumption	Basic: 2.3 W (12 VDC); 2.9 W (PoE) Max. (WDR + IR intensity + Intelligence); 6.6 W (12 VDC); 7.7 W (PoE)		
Weatherproof Standard	IP67,		
Casing	Metal		
Dimension	244.1 mm × 79.0 mm × 75.9 mm (L × W × H)		
Weight	820 g		

### 4 PORT GIGA POE SWITCH

Feature	Specification	Compliance Yes/ no	Remarks
Uplink Ports	2, 1000Mbps; Transmission Distance: 0-100m		
Network Standard	IEEE802.3i/802.3u/802.3x/802.3ab		
Switch Capacity	12 Gbps Full duplex		
Packet Forwarding Rate	1.488Mpps/port		
PoE Ports	4, 1000Mbps; RJ45 ports; Max. 30W Output of Single PoE Port Transmission distance:0~100m		
Network Ports	6		
MAC Address Table	2K		
Transmission Distance	0-100m/100Mbps		
PoE Standard	IEEE802.3af, IEEE802.3at		
PoE Power Supply	1/2(+), 3/6(-)		
PoE Power Budget	48W		
PoE Feature	All ports support MDI/MDIX		
VLAN	Support		
Watchdog	Support		
Power Indicator	Light on: Powering Light off: No Power		
VLAN Indicator	Green light on: VLAN mode Light off: normal mode		
Port 1-10 indicator	Light off: Link is disconnected Red light on: Powering but data disconnected Light flash quickly: Data Transmitting		
Forwarding Mode	Store-and-forward		
Color	Air discharge: 1.5KV Contact discharge: 1.5KV		
Anti-Thunder Level	Common mode: 2KV Differential mode: 2KV		
Power Source	Built-in Power Supply, Input: 110-264V AC, 50/60Hz		
Power Consumption	<5W		
Operating Temperature	-10°C 50°C		
Storage Temperature	-40°C~70°C		
Humidity	10%-95%, non-condensing		
Color	Black		
Dimensions	202mm x 140mm x 45mm (L x W x H)		
Weight	0.7Kg (not include input cable & packaging)		



## 8 PORT GIGA POE SWITCH

Feature	Specification	Compliance Yes/ no	Remarks
Uplink Ports	2 x 1000Mbps RJ45 ports + 2 x 1000Mbps SFP ports		
Network Standard	IEEE802.3i/802.3u/802.3x/802.3af/802.3ab/ IEEE 802		
Switch Capacity	24Gbps Full duplex		
Packet Forwarding Rate	1.488Mpps/port		
PoE Ports	8, 1000Mbps; RJ45 ports; Max. 30W Output of Single PoE Port		
Network Ports	12 port		
Transmission Distance	0-100m/1000Mbps or Port 7-8 Max. 250m/10Mbps via Cat.5e or more under Extend mode		
MAC Address List	2k		
PoE Feature	All ports support MDI/MDI		
PoE Standard	IEEE802.3af, IEEE802.3at		
PoE watchdog	Supported		
PoE Power Supply	1/2(+),3/6(-)		
PoE Power Budget	96W		
Ethernet Port Light	Green light off: Link is disconnected Green light on: Link is connected Green light flash: Data Transmitting		
Surge Protection	Common mode/RJ45 port: 4KV Differential mode/RJ45 port: 2KV Common mode/Power board: 2K Differential mode/Power board: 2KV		
Forwarding Mode	Store-and-forward		
Power Source	Input: 100-240V AC, 50/60Hz, Bult-in Power Supply		
Operating Temperature	-10°C ~50°C		
Power Consumption	<5W		
LEDs Indicator	Light on: Power On Light off: No Power		
Storage Temperature	-40°C ~70°C		
ESD	Air discharge: 8KV Contact discharge: 6KV		
Humidity	10%-95% , non-condensing		
Dimensions	220 x 161 x 44 mm		
Color	Black		
Weight	0.95 Kg (without packaging)		

## 16 PORT GIGA POE SWITCH

Feature	Specification	Compliance Yes/ no	Remarks
Network Port	PoE (1~14): 10/1000Mbps PoE ports (RJ45) PoE (15~16): 10/100/1000Mbps PoE ports, BT port, Compatible uplink ports (RJ45) SFP (1~2): 10/100/1000Mbps uplink ports (SFP)		
Network Standard	IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX/IEEE 802.3ab 1000 Base-T IEEE 802.3xFlowControl IEEE 802.3af/at/bt Power over Ethernet		
Transmission Rate	2000Mbps Full Duplex; 10 or 100 or 1000Mbps Half Duplex		
Transmission Distance	1~100m		
MAC Address Table	8K		
Bandwidth	36.0 Gbps		
Network Latency	(10 to 1000Mbps): ≤16μs (use the 64byte package size)		
Frame Filter & Transmission Rate	14800pps the most for 10Mbps port, 148800pps the most for 100Mbps port, 1488000pps the most for 1000Mbps port		
Power Budget	300W		
Power Input	AC 180~240V, Total ≤300W		
Power Output	PoE 1~14 Port: 1/2 (+52V), 3/6(GND) PoE 15~16 Port:1245(+53V), 3678(GND) compatible 1/2(+52V), 3/6(GND)≤60W		
Lightning Protection	6KV		
Electricity Protection	12KV		
Operating Temperature	-30°C ~ 60°C		
Working Humidity	10%~90% (Non-condensing)		
Storage Temperature	-40°C ~70°C		
Storage Humidity	5%~90% (Non-condensing)		
Dimensions	430mm(L) x 180mm(W) x 45mm(H)		
Warranty	2 Year		
Package Content	Installation Manual		

## 24 PORT GIGA POE SWITCH

Feature	Specification	Compliance Yes/No	Remarks
24 Gigabit Port AI PoE	24 Gigabit Port 10/100/1000Mbps AI PoE Switch		
2 SFP	Yes		
Network Port	PoE (1~22) :10/100/1000Mbps PoE ports (RJ45) PoE (23~24) :10/100/1000Mbps PoE ports, BT port, Compatible uplink ports (RJ45) SFP (1~2):10/100/1000Mbps uplink ports (SFP)		
Network Standard	IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX/IEEE 802.3ab 1000 Base-T IEEE 802.3xFlowControl IEEE 802.3af/at/bt Power over Ethernet		
Transmission Rate	2000Mbps Full Duplex; 10 or 100 or 1000Mbps Half Duplex		
Lightning Protection	6KV, Per: IEC61000-4-5		
MAC Address Table	8K		
Bandwidth	52.0 Gbps		
Network Latency	(10 to 1000Mbps): ≤10μs (use the 64byte package size)		
Frame Filter & Transmission Rate	14800pps the most for 10Mbps port, 148800pps the most for 100Mbps port, 1488000pps the most for 1000Mbps port		
Power Budget	300W		
Power Input	AC 180~240V		
Power Output	PoE: 1~22Port: 1/2(+52V),3/6(GND) PoE2: 3~24Port: 1245(+53V), 3678(GND) compatible1/2(+52V), 3/6(GND)≤60W		
Operating Temperature	-10°C ~ 60°C		
Working Humidity	10%~90% (Non-condensing)		
Storage Temperature	-40°C ~70°C		
Storage Humidity	5%~90% (Non-condensing)		
Dimensions	430mm(L) x 180mm(W) x 45mm(H)		
Warranty	2 Year		
Package Content	Installation Manual, AC Power Cable		

### CAT 6 CABLE

Feature	Specification	Compliance Yes/ no	Remarks
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		
Colour of Sheath	Grey		
Approximate OD	5.8mm ± 0.1mm		
Sheath Thickness	.45mm ± .05mm		
Rip Cord	Yes		
Sequential Marking	Every Meter		
Characteristic Impedance	100 ±15Ω		
Nominal Velocity of Propagation	69%		
Resistance Unbalance	5% Max		
Conductor Resistance	≤9.38/100m		
Resistance Unbalance	5% Max		
Capacitance Unbalance	330pF/100m		
Bending Radius	< 4 x Cable Diameter at -20° ±1°C		
Delay Skew	<45nS		
Mutual Capacitance	<5.6nf/100m		
Packing	100 Mtrs		
Temperature Rating	-15 to 70°C		
Storage Temperature	0 to 50°C		
Impedance	100±15% Ω		
Pulling Force	11.5Kg		