



SBI INFRA MANAGEMENT SOLUTIONS PVT. LTD.
(A wholly owned subsidiary of SBI)

Circle Office:
SBI, LHO, 3rd Floor, Bhadra, Laldarwaja, Ahmedabad-1

APPLICATION ID NO. : AHM202012001

START DATE:01.12.2020

LAST DATE OF DOWNLOADING OF APPLICATION:14.12.2020

**LAST DATE OF SUBMISSION OF DULY FILLED APPLICATION: ON OR
BEFORE 3:00 PM ON 15.12.2020**

SBI Infra Management Solutions Pvt. Limited, Circle Office, Ahmedabad invites applications for pre-qualification/empanelment of vendors for supply, installation, testing, commissioning and annual maintenance of CCTV system of LG, Bosch, Siemens, Honeywell, Pelco, Godrej, Dhaua, Hikvision or equivalent make in State Bank of India in the State of Gujarat including Union Territories of Diu & Daman and Dadra & Nagar Haveli. The eligibility criteria and application form will remain available during the period on Bank's website www.sbi.co.in under "PROCUREMENT NEWS" section.
LINK: <https://sbi.co.in/web/sbi-in-the-news/procurement-news>.

Vice President & Circle Head
Date: 01.12.2020

NOTICE FOR PRE-QUALIFICATION/EMPANELMENT OF VENDORS FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND ANNUAL MAINTENANCE OF CCTV IN THE BRANCHES/OFFICES/ATMs OF SBI IN THE STATE OF GUJARAT INCLUDING UNION TERRITORIES OF DAMAN & DIU AND DADRA & NAGAR HAVELI

State Bank of India (hereinafter referred to as SBI / the Bank) a body Corporate created under State Bank of India Act 1955, having its Local Head Office at Ahmedabad includes the client's representatives, successors.

SBIIMS on behalf of State Bank of India (SBI) Local Head Office Ahmedabad intends to empanel vendors for supply/installation/testing/commissioning and maintenance under Service Level Agreement of CCTV system of LG, Bosch, Siemens, Honeywell, Pelco, Godrej, Dhaua, Hikvision or equivalent make in its branches/ offices/ ATMs etc spread over in the state of Gujarat and UTs of Diu, Daman and Dadra & Nagar Haveli.

The application document may be obtained from the Bank as under or downloaded from Bank's web-site www.sbi.co.in under **procurement news** (LINK: <https://sbi.co.in/web/sbi-in-the-news/procurement-news>) and the application alongwith all necessary documents for empanelment should be submitted to the under mentioned office;

Vice President & Circle Head,
SBI Infra Management Solutions Pvt. Ltd.,
3rd Floor, SBI LHO Building, Bhadra,
AHMEDABAD-380 001

- ❖ SBIIMS/SBI reserves the right to change the dates mentioned in this document, which will be updated in the Banks website.
- ❖ The information provided by the vendors in response to this document will become the sole property of SBIIMS/SBI and will not be returned. SBIIMS/SBI reserves the right to amend, rescind or reissue this application.
- ❖ Application received without online application processing fees of Rs.5000/- (Rs. Five Thousand Only) shall be rejected.

Please note that all the information desired needs to be provided. Incomplete information would lead to disqualification/ non-consideration of the proposal.

Vice President & Circle Head

HOW TO MAKE ONLINE APPLICATION FEES

Go to SBI Internet Banking web site-<https://www.onlinesbi.com/>



Select SBI Collect from Top Menu



Click Check box to Proceed



Select "All India " in state Corporate/Institution and "Commercial Services" in type of Corporate / Institution after that click go



Select " SBI INFRA MANAGEMENT SOLUTIONS PVT. LTD." IN Commercial Services Name and Submit



Select "Tender Application Fee" in Payment category and Enter "Tender ID " and Submit



The Vendor will have to fill up the fields properly and submit upon making the payment a receipt will be generated with a reference no. on submit. The vendor has to enclose the online application payment receipt along with empanelment application.

SBI Infra Management Solutions Pvt. Limited, Circle Office, Ahmedabad invites applications for pre-qualification/empanelment of vendors for supply, installation, testing, commissioning and maintenance of CCTV system of LG, Bosch, Siemens, Honeywell, Pelco, Godrej, Dhaua, Hikvision or equivalent make in the branches/offices/ ATMs in State Bank of India in the State of Gujarat including Union Territories of Diu & Daman and Dadra & Nagar Haveli.

The application fees of Rs. 5,000/- (Rs. Five Thousand only) should be paid through SBI Collect by using SBI Internet Banking web-site www.onlinesbi.com. Applications received without online

- In case the date of opening of application is declared as a holiday, the applications will be opened on the next working day at the same time.
- *If any contractor failed to submit the Non-Refundable online payment receipt, pre-qualification documents alongwith the application shall be summarily rejected.*
- SBIIMS reserves their rights to accept any or to reject all the application(s) in part or whole without assigning reasons thereof and no correspondence shall be entertained in this regard.
- *The applicants are categorically advised to refrain from mentioning the remark "AS PER ATTACHEMENT/ENCLOSURES" in their applications and annexures to avoid rejection of their applications.*
- Conditional applications shall be summarily rejected.
- The applicants should have a valid digital signature certificate (DSC) for this e-tender. The validity of the DSC should be at least 3 months.
- Vendors who are registered under MSME and NSIC will also need to submit non refundable application processing fees. Applications received without non refundable processing fees shall be rejected.

Applications complete in all respect along with relevant documents & **in enclosed format** duly superscribing **"Pre-qualification/Empanelment of vendors for SITC and Maintenance of CCTV system in branches/offices of SBI in Gujarat including Union Territories of Daman & Diu and Dadra & Nagar Haveli"** in sealed envelope should reach at the following address.

Vice President & Circle Head,
SBI Infra Management Solutions Pvt. Ltd.,
State Bank of India, Local Head Office,
3rd floor, Bhadra,
Ahmedabad- 380001

The SBIIMSPL/SBI reserves its right to accept or reject any or all the applications without assigning any reasons whatsoever there for.

NOTICE FOR PRE-QUALIFICATION/EMPANELMENT OF VENDORS FOR SITC AND MAINTENANCE OF CCTV SYSTEM OF LG, BOSCH, SIEMENS, HONEYWELL, PELCO, GODREJ, DHAUA,HIKVISION OR EQUIVALENT MAKES IN THE BRANCHES/OFFICES/ATMs OF SBI IN THE STATE OF GUJARAT INCLUDING UNION TERRITORIES OF DAMAN & DIU AND DADRA & NAGAR HAVELI

Appendix-1

(Please strike-off which is not applicable)

APPLICATION FORM

1	a) Name of the applicant/Firm/ Organization	
	b) Name of work applied for with Category	
	c) Full Postal Address of Firm	
	d) Contact Details (i) Phone No. (ii) Mobile No. (iii) Fax No. (iv) e-mail Id	
	e) Application fee details Online payment receipt no. Date	
2	Year of establishment Please enclose documentary evidence	
3	Constitution of Firm (Enclose certified copies of documents as evidence).	Sole proprietorship/ Partnership /Private Ltd. / Public Ltd. / Any other (Please specify)
4	Name of the Proprietor/ Partners/ Directors of the organization/firm with qualification. Enclose certified copies of document as evidence.	
5	Name/s of authorized signatory/Directors/Partners with designation and contact no.	
6	Mode of Authorization Enclose certified copies of document as evidence	Resolution / Partnership Deed / Registered Power of Attorney / Proprietor / Any Other (Please specify)

7	Details of registration with Registrar of Companies/ Registrar of Firms. Whether partnership firm, company, etc. Name of registering authority, date and registration number Enclose certified copies of document as evidence.	
8	Whether registered with Govt./Semi Govt/Banks/CPWD/Municipal Authorities or any other Public Organization and if so, in which class and since when ? (Enclose certified copies of document as evidence). Name of Organisation Category No. & Date of Registration Name of Organisation Category No. & Date of Registration Name of Organisation Category No. & Date of Registration	YES / NO
9	No. of years of experience in the field and details of work in any other field.	
10	Yearly turnover of the organization during last 3 financial years (year wise) and furnish audited balance sheet and Profit & Loss A/c. (Audited) for the last 3 financial years.	2017-18 2018-19 2019-20 Average :
11	Banker's Details (i) Banker's Name (ii) Full Postal Address (iii) Telephone No. (iv) Account No. (v) Type of Account	
12	PAN No. Enclose certified copy of document as evidence	
13	GST No. Please enclose documentary evidence	

14	Whether registration/ obtention of license from Govt. authorities e.g., labour deptt, EPF, ESIC, etc are in place (please enclose documentary proof).	
15	Whether last three years IT returns filed (Pl. enclose certified copies of the I T return of 2017-18, 2018-19, 2019-20)	
16	Details of major works executed & completed during last 7 years.	Please fill up enclosed Annexure K & enclose copies of work completion certificates
17	Details of major works on hand	Please fill up enclosed Annexure L & enclose copies of LOI /work order / agreement
18	Details of Key Personnel Permanently employed. Technical Personnel (i) Other Personnel	Please also fill enclosed Annexure M
19	Furnish the names of -3- responsible persons along with their designation, address, Tele. No., etc., for whose organization, you have completed the above mentioned jobs and who will be in a position to certify about the quality as well as performance of your organization.	
20	Whether any Civil Suit/litigation arisen in works executed during the last 10 years. If yes, please furnish the name of the project, employer, nature of work, contract value, work order and brief details of litigation. Give name of the Court, place and status of pending litigation.	Attach a separate sheet if required.
21	Information relating to whether any litigation is pending before any Arbitrator for adjudication of any litigation or else any litigation was disposed off during the last ten years by an arbitrator. If so, the details of such litigation are required to be submitted.	
22	Self-declaration on Company/Firm letter head regarding De Empanelment due to poor Performance / unsatisfactory Performance in Govt. Department/PSUs/PSU Bank/ Autonomous bodies/MNCs etc	
23	Declaration on Company/Firm letter head regarding near relatives working in the Bank/ SBIIMSP.	

I/We have read and understood the Press notice/Empanelment Notice & this Application form along with Annexure and my/our firm full fills the ELIGIBILITY CRITERIA as described in the notice.

I/We hereby confirm and certify that the information given above is correct and true and the enclosures annexed herewith are genuine to the best of my / our knowledge.

I/We are authorized to sign and submit these documents for Empanelment

I /We understand that if at any stage it is found / noticed by the Bank/ SBIIMSPL that any information thus provided by us is untrue / incorrect partly or fully and in case of receipt of adverse / unsatisfactory report from other clients / Bankers, the Bank/ SBIIMSPL may not consider our application and / or may de-list us and / or may take any appropriate action against us.

I /We also understand that partly / wrongly filled application and / or applications not on prescribed pro-forma and / or applications not accompanying relevant documents / enclosures / annexure are liable to be summarily rejected by the Bank/ SBIIMSPL.

I/ We confirm that all the Rules prevailing in the state, the Labour Laws, Risk Insurance obligations, State & Central Government statutory requirements are complied by us.

I / We understand that this is merely an application & does not entitles us to be necessarily empanelled by the SBIIMSPL and Bank/ SBIIMSPL reserves the right to reject all and / or any application without assigning any reason whatsoever.

SEAL OF THE FIRM
SIGNATORY)

(SIGNATURE OF AUTHORIZED

PLACE :

NAME :

DATE:

Note : Please enclose all the Annexures with relevant supporting documents.

ANNEXURE

(Please tick whichever applicable)

LIST OF MAJOR WORKS EXECUTED AND COMPLETED DURING LAST 7 YEARS

AS ON 31.10.2020:

(Enclose supporting documents)

(Add separate sheet if required)

Notes:

1. Information has to be filled up specifically in this format.
2. For certificates, the issuing authority shall not be less than an Executive in charge.

Sr. No.	Name of work/project with address	Name & full postal address of the Client. Specify whether Govt. Under taking <i>along with name, address and contact Nos. of -2-persons (Top officials of the organization).</i>	Contract amount (in Rs.) with copy of work order & completion certificate from project in-charge	Nature of Work	Stipulated time of completion (in months) Enclose clients certificate for satisfactory completion	Actual time of completion (in months)	Actual amount of the project cost, if increased, give reasons	Name & Address of Client ant, if any	Remarks
1	2	3	4	5	6	7	8	9	10

Name of Authorized signatory:

Sign & seal of the applicant

ANNEXURE

(Please tick whichever applicable)

LIST OF MAJOR WORKS ON HAND AS ON 31.10.2020:

(Add separate sheet if required)

Notes:

1. Information has to be filled up specifically in this format.

Sr. No.	Name of work/project with address	Name & full postal address of the owner. Specify whether Govt. under taking <i>along with name, address and contact Nos. of -2- persons (Top officials of the organization)</i>	Contract amount (Rs.) with copy of Work Order from project in-charge	Stipulated time of completion (Months)	Present status of the project	Name & Address of Client, if any	Any other relevant information
1	2	3	4	5	6	7	8

Name of Authorized Signatory

Sign & seal of the applicant

ANNEXURE

(Please tick whichever applicable)

**DETAILS OF KEY PERSONNEL (PERMANENT EMPLOYEE), GIVING
DETAILS ABOUT THEIR TECHNICAL QUALIFICATION & EXPERIENCE
INCLUDING THEIR IN HOUSE ESTABLISHMENT**

Sr No	Name of Prop., Partners, Directors, Employees having Technical Qualification	Designation	Age	Qualification	Experience	Nature of works handled	Name of the projects handled along with amounts	Date from which employed in your organization	Indicate details of experience for similar projects
1	2	3	4	5	6	7	8	9	10

(Add separate sheet if required)

Notes:

1. Information has to be filled up specifically in this format.
2. Indicate other points, if any, to show your technical competence to indicate any important point in your favour.

Name of Authorized Signatory
applicant

Sign & seal of the

SCHEDULE OF EVENTS

Availability of application for empanelment	Application can be downloaded from website from <u>01.12.2020 to 14.12.2020</u>
Last date for requesting clarification	Upto 1200 hrs on <u>07.12.2020</u> All communications regarding points / queries requiring clarifications shall be <u>e-mailed at</u> agmsec.lhoahm@sbi.co.in
Pre - bid Meeting at SBIIMS, C.O., 3 rd Floor, State Bank of India, Local Head Office, Ahmedabad	From 1500 hrs to 1600 hrs on 07.12.2020 .
Last date of submission of completed application and Technical Bid	1500 hrs on <u>15.12.2020</u>
Opening of application & Technical Bid	1600 hrs on <u>15.12.2020</u> Authorised representatives of vendors may be present during opening of the application.
Empanelment of vendors	Vendors who qualify as per <u>Para 16</u> will be informed subsequently.
Opening of Price Bids / Reverse Auction	Only empanelled vendors will be informed for participation in price bid/Reverse Auction.
Contact Details	
Address for Communication and submission of bid.	Circle Security Officer, 3 rd Floor, Circle Security Department State Bank Of India, Local Head Office Bhadra Lal Darwaja, Ahmedabad- 380001.
Telephone	07925511448
All correspondence relating to this RFP should be sent to following email id	agmsec.lhoahm@sbi.co.in

DISCLAIMER

The information contained in this Request for Proposal (RFP) document or information provided subsequently to Vendor(s) or applicants whether verbally or in documentary form by or on behalf of State Bank of India (Bank), is provided to the Vendor(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

This RFP is neither an agreement nor an offer and is only an invitation by the SBIIMS on behalf of the Bank to the interested parties for submission of bids. The purpose of this RFP is to provide the Vendor(s) with information to assist in the formulation of their proposals. This RFP does not claim to contain all the information each Vendor may require. Each Vendor should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP and where necessary, obtain independent advice. SBIIMS/Bank makes no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP. SBIIMS/Bank may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP. No contractual obligation whatsoever shall arise from the RFP process until a formal contract is signed and executed by duly authorized officers of the SBIIMS/Bank with the selected Vendor.

INTRODUCTION

1. Broad Scope of Work:

- 1.1 To prepare a panel of reputed & reliable Manufacturers/ Firms/ Companies/ Dealers/ Vendors dealing in supply, installation of CCTV Systems and their commissioning, software optimization/customizations, providing warranty/Post warranty services.
- 1.2 . CCTV System supply, delivery at site, unloading, any other services associated with the delivery of equipment and installation, cabling, commissioning, software optimization/customizations, providing warranty/Post warranty services (i.e. Annual Maintenance Contract) and AMC's of existing security equipments and any other related accessories/services for the complete installation and commissioning of system in the State Bank of India branches/ offices/ATM's etc in the State of Gujarat and Union territories of Diu, Daman and Dadra & Nagar Haveli following in the below mentioned Networks:

Network I: Ahmedabad and Rajkot Administrative Office Area .

Network II: Vadodara and Surat Administrative Office Area include Union territory of Daman, Diu and Dadra & Nagar Haveli.

FI&MM Network: Regions in Bhavnagar and Gandhinagar Office Area .

2. Eligibility Criteria:

Each of the following criteria should be fulfilled for further evaluation of technical bid. Not fulfilling any one of the criteria will result in rejection of bid.

- 2.1 The intending Manufacturer/ Firm/ Company/ Dealer/ Vendor should be in the field of supplying, installation & maintenance of CCTV system business for which he is applying for a minimum period of **05 years** as on **31 October, 2020**.
- 2.2. The Manufacturer/ Firm/ Company/ Dealer/ Vendor should have **installed minimum 500 CCTV System (minimum 8 channel DVR and cameras etc) during last 07 years** in Public Sectors Banks/Private Sector Banks/Public Sector Undertaking (PSU)/Financial Institutes(FIs)/Corporate Offices etc. They should have in past 07 years Supplied, Installed, Tested, Commissioned minimum **300 CCTV system in Banks (Public Sector/ Private Sector)**.
- 2.3 They must be empanelled in **minimum 03 Banks** (Public or Private) at all India level and out of it they must be empanelled in **02 Banks** (Public or Private) in Gujarat State.
- 2.4. Documentary proof should be provided in support of work done (as per Para 2.2) like work order Copy and Satisfactory Performance Certificates and **work completion certificate from the clients in original**. Documentary proof of **Service Level Agreement copy for the Para 2.3** should be provided.
- 2.5 Manufacturers/ Firms/ Companies/ Dealers/ Vendors must have valid PAN and GST Number and should have complied with all applicable statutory provisions/ obligations.
- 2.6 If the vendor is original equipment manufacturer of the **proposed make** (as per the RFP document) of the system or a subsidiary company of a manufacturer company for such system, proof for the same must be provided.
- 2.7 If the vendor is authorized supplier of the **proposed make** (as per the RFP document) of equipments, it shall have back-to-back agreement with each of the equipment Manufacturer, to give direct support for maintenance, spares and upgrades for a **minimum period of 05 years (including warranty period)**.
(Annexure-A)

- 2.8. The company/ vendor should have Manufacturer's Authorization Form (**MAF**) in **original** with clear **validity date**. The copy of the same is to be attached with the documents. (**Annexure-B**)
- 2.9 The products proposed by the vendor **should be from OEM which** should be **UL** (Underwriters Laboratories Inc) certified. **CE** (*Conformity European* ("European Conformity")) / **BIS** (Bureau of Indian Standard) certified is desirable. A proof of the same is required to be provided by the vendor.
- 2.10 The Manufacturer of the equipment must have a sound well documented Quality Framework. Applicant is permitted to submit a valid ISO certificate (ISO 9001:2008) (ISO14001:2004) or equivalent (**not older than 01 year**) for the Manufacturer in support of this clause, if any.
- 2.11 The applicant should have an **established office/ service centre** with technical personnel in Gujarat State for providing 24 hours X 7 days post implementation support. The Office should be there for minimum **03 years** as on the date of the tender. Proof for the same to be submitted. **Registration certificate of Shops & Establishment from State Government is mandatory.**

Further, if empanelled, it is mandatory for the vendor to open one Office in the city/town of the allotted area where the Administrative Office exist, after getting the area allotment letter and before commencement of the contract. **Failing which the empanelment will be cancelled.** Documentary proof like lease agreement/ agreement of sale and **shops and establishment certificate** to be provided.

- 2.12 The Manufacturers/ Firms/ Companies/ Dealers/ Vendors should have sufficient qualified and trained engineers/ technicians for supervision and execution of work (List of technician/ tradesmen along with their qualification to be enclosed).
- 2.13 The Manufacturers/ Firms/ Companies/ Dealers/ Vendors should have sufficient workshop space & technical equipments for testing/ repairing/ execution/ maintenance of equipment befitting to the quality & quantity of work. The Bank may inspect the facilities of the Manufacturer/ Firm/ Company/ Dealer/ Vendor to verify the genuineness and to ensure the conformity with the details given.
- 2.14 **Turn Over:** The Manufacturer/ Firm/ Company/ Dealer/ Vendor Average Annual financial turnover for **similar work** during the last 3 years, ending 31st March 2020, (For FY 2019-20 , 2018-19, 2017-18) should be at least **Rs. 5.75 Crores. (Rupees Five Crore and seventy five lakhs only)**

(Attested photocopies of the ITRs and Audited Balance Sheets of last three years to be provided). Please only attach Profit & Loss statement and turnover certificate duly certified by a Chartered Accountant. In the absence of certificates the EO application will be summarily rejected. No other documents are required to be attached. Additional supporting documents if required would be asked for, subsequently.

"Similar work" means supply, installation and successful completion of CCTV related work. Copy of **work order and successful completion certificate** must be provided in **original**. Non submissions of completion certificate will mean that the required amount of work has not been done and the proposal will be rejected.

- 2.15 The applicant should be in **profit during** the last **three** consecutive years i.e 2019-20 , 2018-19, 2017-18.
- 2.16 During the period of **last 07 years** the vendor should have experience of providing maintenance support to minimum **350 branches/offices of Banks** (Private / Public sector Bank) Annual Maintenance Contract (AMC). Proof to be submitted

- 2.17. The proposed security equipment should be an established brand and should be in market for the last 05 years. Proof to be submitted.
- 2.18. The proposed brand OEM must have fully equipped repair and maintenance office in India and sub Office in Gujarat state.
- 2.19 It is mandatory for the vendor to submit **work satisfactory certificate** of **each client** where they are Currently empanelled and shown by them in the tender documents. The work satisfaction certificate should be **from Zonal Office/ Regional Office** where they are providing the services, failing which their proposal will be rejected.
- 2.20 **Work Order:**
- Experience of having successfully completed CCTV related works, the completed work order not less than **Rs. 07.67 crores (Rupees Seven Crores and sixty seven lakhs only)** excluding taxes during last 07 years up to 30.08.2020 .
- Copy of work order and successful completion certificate** must be provided in original. Non submissions of completion certificate will mean that the required amount of work has not been done and the proposal will be rejected.
- 2.21. **Satisfactory performance certificate** in **original** from the clients where the installation has been done(i.e currently not empanelled with the company but whose work order completed and shown in tender documents).
- 2.22 **Solvency Certificate:** The vendor should have latest solvency certificate of Rs **Ten lakhs only** certified by a scheduled Bank. **It should not be older than six months from the date of submission.** In case, the applicant is not able to supply the solvency certificate in original, then the copy of the certificate shall be attested by a notary.
- 2.23 **Product Literature:** Technical Specifications/ Brochure of the product offered to be attached.
- 2.24 **Submission of EMD as per the Para 9.**
- 2.25 The intending Manufacturer/ Firm/ Company/ Dealer/ Vendor who are under arbitration/ litigation with our Bank or have been black listed/ de-listed/ de-empanelled (**due to poor/unsatisfactory performance**) by any Government/ Semi Government/ Nationalised Public Sector Banks/ Public Sector Undertaking (PSUs) / Financial Institutes (FIs)/ Corporate Offices **will not be considered for Empanelment.**
- 2.26 Weightage will be given to the vendor in matrix for his **current empanelment** with numbers of Banks (Public/ Private sector). (Proof to be submitted) The more number of Banks he is empanelled and work with some additional marks will be given in the matrix.
- 2.27 Company/Vendor security equipment/ products, if failed in compliance with technical specification and certification as asked by the Bank during the product demonstration, will disqualify the company/vendor from the further tendering process.
- 2.28 Preference will be given to Make in India products matching specification and certification given in the tender document.
- 2.29 *Cost of Bidding: The Vendor shall bear all costs associated with the preparation and submission of its Bid, and the SBI/MSB/Bank will in no case be responsible or*

liable for these costs, regardless of the conduct or outcome of the Bidding process.

4. **The Bidding Documents**

4.1.1 The Vendor is expected to examine all instructions, forms, terms and specifications in the Bidding Document. Failure to furnish all information required by the Bidding Document or to submit a Bid not substantially responsive to the Bidding Document in every respect will be at the Vendor's risk and may result in the rejection of the Bid.

4.1.2 The Vendor shall indicate the measure of compliance to each paragraph of this RFP. While preparing the compliance report, if the Vendor feels that additional information would be required for enabling full understanding of the Vendor's offer, such points should be supplemented by additional description information.

4.2 Clarification / Amendment of Bidding Document

4.2.1 Vendor requiring any clarification of the Bidding Document may notify the Bank in writing at the address or by **e-mail** indicated in Schedule of Dates.

4.2.2 A **pre-bid meeting** scheduled as mentioned in the schedule of events..

4.2.3 Participating bidders to submit their points for clarification via e-mail on or before schedule date mentioned in the schedule of events so that same can be compiled and discussed during the meeting.

4.2.4 Text of queries raised (without identifying source of query) and response of the Bank together with amendment to the bidding document, if any will be posted on Bank's website. No individual clarification will be sent to the vendors. It is the responsibility of the vendor to check the website before final submission of bids.

4.2.5 Relaxation in any of the terms contained in the Bid, in general, will not be permitted, but if granted by Bank, the same will be put up on Bank's Website.

4.2.6 All vendors must ensure that such clarifications / amendments have been considered by them before submitting the bid. SBIIMS/Bank will not take responsibility for any omissions by vendor.

4.2.7 At any time prior to the deadline for submission of Bids, the SBIIMS/Bank, for any reason, whether, at its own initiative or in response to a clarification requested by a prospective Vendor, may modify the Bidding Document, by amendment.

4.2.8 In order to enable vendor's reasonable time in which to take amendments into account in preparing the bids, the SBIIMS/Bank, at its discretion, may extend the deadline for submission of bids.

5. *Language of Bid:*

5.1 The Bid prepared by the Vendor, as well as all correspondence and documents relating to the Bid exchanged by the Vendor and the Bank and supporting documents and printed literature shall be submitted **in English**.

6. *Bid Prices*

6.1. Prices are to be quoted in **Indian Rupees** only.

6.2. Prices quoted should be all **inclusive excluding taxes**.

6.3. Prices quoted by the Vendor shall be fixed for minimum **01 year**. A Bid submitted

with an adjustable price quotation will be treated as non-responsive and will be rejected.

- 6.4 **Bank will review the price of the CCTV system every year along with the review of the specification. The latest specification higher and better than the existing one on same approved rated or less than it if available will be provided to the Bank by the vendor.**

7. Documentary Evidence Establishing Vendor's Eligibility and Qualifications

- 7.1 The documentary evidence of the Vendor's qualifications to perform the Contract if its Bid is accepted shall establish to the Bank's satisfaction:

- (a) that, in the case of a Vendor offering to supply products and/or Systems under the Contract which the Vendor did not produce, the Vendor has been duly authorized as per authorization letter (**Annexure-B**) and back to back support **certificate for 05 years.**
- (b) that adequate, specialized expertise are available to ensure that the support services are responsive and the Vendor will assume total responsibility for the fault-free operation of the solution proposed and maintenance during the warranty period and after it, should be in **position** to provide necessary maintenance services up to **next five years** under AMC.

8. Documentary Evidence Establishing Eligibility of Products and Conformity to Bidding Documents

- 8.1 The Vendor shall submit point by point compliance to the technical specifications and it should be included in the Bid.
- 8.2 Any deviations from specifications should be clearly brought out in the bid.
- 8.3 The Vendor should quote for the entire package on a single responsibility basis for hardware / software / services it proposes to supply/provide.
- 8.4 On selection the price break up item wise to be submitted and **under no circumstance price of individual items should be quoted above its MRP.** Quoting of price of item above MRP will reject the bid and next lowest vendor will be given chance to offer his product.

9 Earnest Money Deposit (EMD)

- 9.1 **Only the successful vendor, who will be empanelled with the Bank** will furnish an EMD before commercial bid in form of DD in the name of SBI Infra Management Solutions Pvt Ltd payable at Ahmedabad of Rs. 02 lacs (Rupees Two Lacs only).
- 9.2 The EMD is required to protect the Bank against the risk of Vendor's conduct, which would warrant the EMD's forfeiture.
- 9.3 The EMD of the unsuccessful Vendors shall be returned within 30 days from the date of award of contract to successful vendor and no interest shall be payable on EMD of unsuccessful renderers.
- 9.4 The successful Vendor's EMD will be returned when he will submit security money deposit (which will be 5% of the cost of work) or **minimum one lakh** upon the Vendor signing the Contract. This money will be held up to the existing of contract with the vendor.

- 9.5 The EMD may be forfeited:
- a) if a Vendor does not participate in the reverse auction or offline commercial bid. or
 - b) if a Vendor makes any statement or encloses any form which turns out to be false / incorrect at any time prior to signing of Contract; or
 - c) in the case of a successful Vendor, if the Vendor fails;
 - (i) to sign the Contract;
- or**
- (ii) to furnish security money deposit.

10 *Period of Validity of Bids*

- 10.1 Bids shall remain valid for a period of 180 days from the date of opening of the Bid. A Bid valid for a shorter period may be rejected by the Bank as non-responsive.
- 10.2 In exceptional circumstances, the SBI/MS/ Bank may solicit the Vendors' consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The EMD provided shall also be suitably extended. A Vendor may refuse the request without forfeiting its EMD.
- 10.3 The Bank reserves the right to call for fresh quotes any time during the validity period, if considered necessary.

11. Documents Comprising the Bid

- 11.1 Documents comprising the **Technical Proposal Envelope**, should contain following:
- a) Application For Empanelment – **Annexure- A**
 - b) Online application processing fees.
 - c) EMD– **Annexure-C.**
 - d) Manufactures/ Producers Authorization Form - **Annexure-B**
 - e) Compliance in accordance with the clauses in the BID and duly signed by the authorized representative of the Vendor and stamped with the official stamp of the Vendor (Board resolution authorizing representative to bid and make commitments on behalf of the Vendor on each page to be attached).
- 11.2.1 A separate non-refundable online **application fees of Rs 5000/-** should be enclosed with the tender.
- 11.2.2 While submitting the Technical Bid, literature on the software / hardware if any, forms and bids documents should be segregated and kept together in one section / lot. **The application fees to be given in separate envelopes with proper encryption on top.**
- 11.4 Any Technical Proposal not containing the above will be rejected.
- 11.5 The Technical Proposal should **NOT contain any price** information. Such proposal, if received, will be rejected.
- 11.6 The Technical bid should be submitted separately in properly sealed NON-WINDOW envelopes, **superscribed with** "Pre-qualification/empanelment of vendors for **Supply, Installation, Testing, Commissioning and Maintenance of CCTV System for SBI**". All envelopes should prominently indicate the name and address of the Vendor on the cover.
- 11.7 The Bid shall be typed or written in indelible ink and shall be signed and stamped by the Vendor or a person or persons duly authorized to bind the Vendor to the Contract. The person or persons signing the Bids shall initial and stamp all pages

of the Bids, except for un-amended printed literature.

- 11.8 Any inter-lineation's, erasures or overwriting shall be valid **only** if they are initialled and stamped by the person signing the Bids. The SBIIMS/Bank reserves the right to reject bids not conforming to the above.
- 11.9 If the envelope is not properly sealed and marked, the bid will be rejected.

12 Deadline for Submission of application

- 12.1 Application must be received by the SBIIMS at the address specified, not later than the date & time specified in the RFP.
- 12.2 In the event of the specified date for submission of bids being declared a holiday for the Bank, the bids will be received up to the appointed time on the next working day.
- 12.3 The SBIIMS/Bank may, at its discretion, extend the deadline for submission of bids by amending the bid documents, in which case, all rights and obligations of the Bank and vendors previously subject to the deadline will thereafter be subject to the extended deadline.

- 13 **Late Bids:** Any Bid received after the deadline for submission of Bids prescribed, **will be rejected** and returned unopened to the vendor.

14. Modification and Withdrawal of Bids

- 14.1 The Vendor may modify or withdraw its Bid after the Bid's submission, provided that written notice of the modification, including substitution or withdrawal of the Bids, is received by the Bank, prior to the deadline prescribed for submission of Bids.
- 14.2 The Vendor's modification or withdrawal notice shall be prepared, sealed, marked and dispatched. A withdrawal notice may also be sent **by e-mail**, but followed by a signed confirmation copy, postmarked, not later than the deadline for submission of Bids.
- 14.3 No Bid will be modified after the deadline for submission of Bids.
- 14.4 No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Vendor on the Bid Form. Withdrawal of a Bid during this interval may result in the Vendor's forfeiture of its EMD.

15. Opening and Evaluation of Bids

15.1 Opening of Bids by the SBIIMS/Bank

15.1.1 *The Vendors' names, Bid modifications or withdrawals and the presence or absence of requisite EMD and such other details as the SBIIMS/Bank, at its discretion, may consider appropriate, will be announced at the time of technical Bid opening.*

15.1.2 *Bids and modifications sent, if any, that are not opened at Bid Opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the Vendors.*

15.2 Preliminary Examination

- 15.2.1 The SBIIMS/Bank will examine the Bids to determine whether they are complete, required formats have been furnished, the documents have been properly signed, and the Bids are generally in order.
- 15.2.2 Prior to the detailed evaluation, the Bank will determine the responsiveness of each Bid to the Bidding Document. For purposes of these Clauses, a responsive Bid is one, which conforms to all the terms and conditions of the RFP without any deviations.
- 15.2.3 The Bank's determination of a Bid's responsiveness will be based on the contents

of the Bid itself, without recourse to extrinsic evidence.

15.2.4 If a Bid is not responsive, it will be rejected by the Bank and may not subsequently be made responsive by the Vendor by correction of the non-conformity.

15.3 Technical Evaluation

15.3.1 Only those Vendors and Bids who have been found to be in conformity of the eligibility terms and conditions during the preliminary evaluation would be taken up by the Bank for further detailed evaluation. Those Bids who do not qualify the eligibility criteria and all terms during preliminary examination will not be taken up for further evaluation.

15.3.2 The SBIIMS/Bank reserves the right to evaluate the bids on technical & functional parameters including factory visit and witness demos of the system and verify functionalities, response times, etc.

15.3.3 SBIIMS/Bank will evaluate the technical and functional specification of the CCTV System quoted by the Vendor and weightages for various features would be as under :

Technical Bid: Evaluation Matrix

Sl	Parameter	Marks	Total Marks	Marks obtained
1	Average Turnover during last three years (in sales of CCTV related works)	I. Rs.07 Crore and above-05 II. Between Rs 05.75 Crore and 07 Crore-03	05	
2	Years of experience in field	I. 10 years and above-05 II. Between 05 years and 10 years-03	05	
3	Currently empanelled with number of Banks (Public/ Private Sector)	I. More than 07 Banks-05 II. Between 04 to 06 Banks-04 III. Up to 03 Banks-03	05	
4	Product	I. Manufacturer of the given brand -05 II. Subsidiary company of given brand-04 III. Authorized dealer of the given brand-03	05	
5	ISO certificate given for excellence to the bidding Company / Vendor	I. Has Certificate -05 I. No Certificate-00	05	
6	Installation work done	I. Installation done in Government/ Semi Government /PSU/FI / Bank (Public/Private) - 05. II. Installation done in Bank (Public/Private) only- 03	05	
7	Number of Installation done of CCTV System minimum 8 channel	More than 700 system- 10 Between 600 to 700-07 Between 500 to 600- 05	10	
8	Currently providing maintenance support to branches/ offices under Annual Maintenance Contract (AMC)	I. More than 300 branches/Offices- 10 II. Between 200 to 300-07 III. Between 100 to 200- 05	10	
9	Presence of Company	I. Presence in Gujarat and other State-05 II. Presence in Gujarat only-03 III.	05	

10	Office in Gujarat	I. Ahmedabad-02. II. Vadodara-02. III. Surat-02 IV. Rajkot-02 V. Bhavnagar-02	10	
11	Technical Presentation and Equipment demonstration	I. Technical Presentation - 15 II. Equipment demonstration - 10	25	
12	Product presence in the Market	I. More than 10 years-05 II. Between 05 to 10 years-03	05	
13	Committee assessment	Assessment of Company with regard to its reputation, experience and infrastructure	05	
	Total		100	

15.3.4 Marks under each parameter will be awarded by the committee but will not be disclosed to the vendors. Minimum qualifying marks shall be marks obtained within 20% of the highest obtained marks. The bids of vendors securing less than the qualifying marks will not be considered for further evaluation. **For example if the highest vendor score 90 marks, than applicants scoring 72 marks and above will be considered for further process.**

15.3.5 During evaluation and comparison of bids, the SBIIMS/Bank may, at its discretion ask the vendors for clarification of its bid. The request for clarification shall be in writing. No post bid clarification at the initiative of the vendor shall be entertained.

15.3.6 Only the short listed applicants i.e. who fulfilled the eligibility criteria and other terms and conditions would then be invited by the SBIIMS/Bank to make a presentation of their equipment and their proposed methodology, at their own cost.

16 Empanelment of the vendor :

16.1 Those Vendors who qualify in pre-qualification and Technical evaluation will be eligible for **empanelment in the SBIIMS/Bank for period of 03 year from the date of signing of agreement.** The validity of empanelment may be renewed at the discretion of the SBIIMS/Bank on the existing terms and conditions for **another one year, provided that the vendor performance is found to be satisfactory during the Contract period.** They vendors have to submit their consent in writing for working with bank as per the Term and Condition of this RFP in their company letter head, seal and signed by the authorized person. (**Annexure-D**). **It is to note that after the completion of a 03years if the vendor does not get de-empanelment notice from the Bank it will constitute that the vendor empanelment continues in the Bank for another one year.**

16.1.1 Empanelled vendors **who did not get any work order** has to deposit **Rs 10000/- (Rupees ten thousand only)** as security deposit money for empanelment. This

security deposit money will be increased proportionately as and when the vendor gets the work order.

16.1.2 If empanelled vendor will not participate in reverse auction or commercial bid subsequently or in future within contract period, then the empanelment of the vendor will be cancelled and the security money deposited will be forfeited.

16.1.3 Those empanelled vendor who did not get any work order during the term of 03 years empanelment, their empanelment will be extended to another one year and so on, subject to the condition that any adverse report against their performance in the same field is not received from their existing clients.

16.2 Review of the performance of the empanelled vendor will be done on half yearly basis.

17. *The commercial bidding process for fixation of different component of CCTV System will be through sealed price bidding (Online). Those Vendors who qualify in pre-qualification and Technical evaluation and subsequently empanelled in the SBIIMS/Bank, will be informed for price bids .*

17.1 Vendor will submit the **sealed Price bid Proposal online**, as per the as per **Annexure-F** wherein the **“All Inclusive Price”** excluding taxes under the signature and seal. He will also enclosed the price break up of BOQ as per appendix 6 and 6(a) separately. **The price will be fixed for 01 year.**

17.3 Online bidding **will be done for complete Circle branches/offices/ ATMs falling under three Networks i.e Network-I, Network - II and FI&MM Network and inclusive of AMC charges . Network details given at Para 1.2 of RFP.** It should be noted that the rates of individual items should not be quoted above MRP otherwise the bid will not be accepted.

17.4 Malpractice/ attempt to influence/ Manipulation of rates i.e. quoting lower rates as compared to the market/OEM rates, shall be viewed very seriously. If such a situation comes to the notice and /or there are reasons/ circumstances for SBIIMS/Bank to believe so, the concerned applicant will be called in to give justification of rates quoted by them to the committee. If they are not able to give proper/ satisfactory justification of their quoted rates, their bid will be cancelled.

17.5.1 The L1 Vendor will be selected on the basis of **total package** cost to the Bank in the online price bid.

17.6 Arithmetic errors, if any, in the price breakup format will be rectified as under :

- (a) If there is a discrepancy between the unit price and total price which is obtained by multiplying the unit price with quantity, the unit price shall prevail and the total price shall be corrected unless it is a lower figure. If the vendor does not accept the correction of errors, the bid will be rejected.
- (b) If there is a discrepancy in the unit price quoted in figures and words, the unit price in figures or in words, as the case may be, which corresponds to the total bid price for the bid shall be taken as correct.
- (c) If the vendor has not worked out the total bid price or the total bid price does not correspond to the unit price quoted either in words or figures, the unit price quoted in words shall be taken as correct.
- (d) Bank may waive off any minor infirmity or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such a waiving does not prejudice or affect the relative ranking of any vendor.

- 17.7 **Prices for all Items** : The Vendor should quote for complete solution proposed/listed in this Bid. In case, prices are not quoted by any Vendor for any specific product and / or service, for the purpose of evaluation, the highest of the prices quoted by other Vendors participating in the bidding process will be reckoned as the notional price for that service, for that Vendor. However, if selected, at the time of award of Contract, the lowest of the price(s) quoted by other Vendors (whose Price Bids are also opened) for that service will be reckoned. This shall be binding on all the Vendors. However, the Bank reserves the right to reject all such incomplete bids.
- 17.8 The commercial bid shall include the complete cost of the project, implementation cost i.e. all cost involved till the time of testing and satisfactory handing over the complete system to the purchaser i.e. the State Bank of India.
- 17.9 Reverse auction than the online reverse auction shall be conducted by **E-Procurement Technologies Pvt. Ltd.**, Ahmadabad who has been authorized by the Bank to conduct the e-bidding process. The short-listed vendors will be trained by E-Procurement Technologies Pvt. Ltd for this purpose, and they should also be willing to abide by the E-business rules framed by the Bank in consultation with E-Procurement Technologies Pvt. Ltd. In this connection, the vendors should sign the business rules documents prescribed by the above agency and the Bank. For this if the vendor is advised by the Bank that he will **arrange for the digital signature**. In case e-reverse auction failed due to expiry of digital signature of any vendor, the responsible vendor will be imposed **Rs 5000/- (Rupees Five thousand penalty)** and repetition of the same will result in forfeiture of EMD/Security money deposit. The Bank may further if considered necessary will debar that vendor from participating in Banks tendering process for next three years.

18 *Contacting the Bank*

- 18.1 No Vendor shall contact the SBIIMS/Bank on any matter relating to its Bid, from the time of opening of Price Bid to the time the Contract is awarded.
- 18.2 Any effort by a Vendor to influence the Bank in its decisions on Bid evaluation, Bid comparison or contract award may result in the rejection of the Vendor's Bid.

19 *Award Criteria*

- 19.1 The allocation of work will be done in the following manner provided the vendors are willing to match the L-1 price:
- a. **L1** will get around 400 Branches/ Offices/ATMs for providing service support, it may be falling under 02 AOs or 07 to 08 RBO's.
 - b. **L2, L3, L4, and L5** each will get around 200 Branches/ Offices/ATMs for providing service support, it may be falling under 01 AO or 04-05 RBOs.
 - c. In case any/each of L2 to L5 are not willing to work for L1 rates than the offer will pass to the next vendor's i.e L6, L7 and so on. In case the no vendor agrees to work in L1 price, than the entire contract shall be performed by L1 vendor.
- 19.2 The SBIIMS/Bank will award the Contract to the successful Vendor who has been determined to qualify to perform the Contract satisfactorily, and whose Bid has been determined to be responsive, and is the lowest evaluated Bid i.e L1. **The SBIIMS/Bank may, if considered necessary, hold comprehensive price negotiations with L1 vendor.**

In case L1 shows unwillingness to work than again commercial bidding (Online) will be done. The L1 vendor who after bidding showed unwillingness to do work , his EMD will be forfeited and will not be allowed to participate in future **tender process for three years.**

- 19.3. The SBIIMS/Bank reserves the right at the time of award of contract to increase or decrease the numbers of branches or numbers of security system required or change in location where equipments are to be supplied from what was originally specified while floating the RFP without any change in unit price or any other terms and conditions.
- 19.4 **SBIIMS/Bank's right To Accept Any Bid and to reject any or All Bids:** The SBIIMS/Bank reserves the right to accept or reject any Bid in part or in full or to cancel the Bidding process and reject all Bids at any time prior to contract award, without incurring any liability to the affected Vendor or Vendors or any obligation to inform the affected Vendor or Vendors of the grounds for the Bank's action.

20 *Notification of Award*

- 20.1 Prior to expiration of the period of Bid validity, the SBIIMS/Bank will notify the successful Vendor in writing or by e-mail, that his Bid has been accepted.
- 20.2 The notification of award will constitute the formation of the Contract. The selected Vendor should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the award letter within **07 days** of receipt of the communication. (**Annexure- D**)
- 20.3 Upon notification of award to the L1, L2 ,L3 , L4 and L5 vendors, the Bank will promptly notify each unsuccessful Vendor and will discharge its EMD.
- 20.4 Although work will be allotted up to L-5 vendor. Remaining vendor if any will be empanelled in the bank **for 03 years.** For this they have to submit their consent letter (**Annexure-D**). They will not be allotted any work immediately. But in case of unsatisfactory performance by any of the L-1, L-2, L-3, L4, L5 vendors , the Bank may award work to empanelled vendor if they agree to work in approved L-1 price for the contract period. Or they will be called to participate in future commercial bids for the CCTV system .

21 *Security Deposit : Security Deposit in the form of DD (in the name of AGM P&E SBI LHO Ahmedabad payable at Ahmedabad) of 5% of contract value or minimum Rupees one lakh for CCTV system whichever is higher amount to be submitted by the successful vendor (i.e vendor who got the work order) within 07 days and this amount will be deposited in the Bank's current Account and the vendor will not be get any interest on the amount. Contract will be signed after deposit of the security deposit amount. The amount will be held by the Bank during the term of the contract.*

22. *Signing of Contract:*

- 22.1 *In the absence of a formal contract, the Bid document, together with the Bank's notification of award and the vendor's acceptance thereof, would constitute a binding contract between the Bank and the successful Vendor.*
- 22.2 Failure of the successful Vendor to not sign the agreement with the Bank shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD.

22.3 The SBIIMS/Bank reserves the right either to forfeit the security deposit or to cancel the purchase order or both if the Vendor fails to meet the terms of this RFP or contracts entered into with them.

23 **Signatures:**

In the event of the bid being submitted by a firm, it must be signed separately by each member thereof, or in the event of the absence of any one or more of the partners, it must be signed on his / their behalf by a person holding a power of attorney authorizing him to do so. In the case of authorized person, the copy of letter issued by competent authority to sign on behalf of the company should be enclosed (**with resolution copy**).

24 . **GENERAL**

24.1 The Vendor shall present a comprehensive description of the architecture and configuration of the proposed system, identifying salient features and functions that include design proposal with layouts, diagram, etc. Third party equipment offered, as system integrator must be indicated. The selected final vendor must provide a project execution plan with a technical proposal wherever required or asked by the Bank.

24.2 Any functions or features not specifically mentioned in technical specification of the product, but which may be necessary for the completeness and efficient performance of the system as an operating entity, shall be indicated by the Vendor and explained in detail indicating any price variation. Price of any item or feature not offered by the Vendor as part of basic configuration shall be indicated separately.

24.3 The vendor shall clearly indicate the country of origin, manufacturer of the equipment. Testing and Certification: The vendor shall arrange to provide testing and certification of the complete system installed.

24.4 All systems and components must be in compliance with UL certifications. It shall conform **to ONVIF (S) standards**. The quoted camera model should also be listed in the ONVIF Website. Copy of the UL certification, ONVIF compliant certificate indicating the make and Model of the Camera offered shall be submitted. The MAC address of the IP cameras must be registered in the name of OEM supplying the cameras.

24.5 The bank may arrange for the third party inspection of the products/equipment provided (as per the RFP document) for the system installed for its meeting the entire RFP criterion. The vendor who wins contract shall provide all the possible assistance in this process. In case it was found that the equipment/hardware/software supplied is not as per given brands / specifications, SBI will take a suitable action as deemed fit.

24.6 It will be imperative on each of the vendors to fully acquaint themselves with all the local conditions and factors, which can have any effect on the performance of the contract.

24.7 Earthing arrangements for all the equipments shall be the responsibility of the Supplier and to be carried out as per standard procedures.

24.8. The **system software should be free of cost along with the system price** and in future if any up gradation is required for running of the system than it **should be upgraded free of cost** .

24.9 **The new DVR/NVR, switches and cameras should have warranty of 02 years.**

25 Miscellaneous

- 25.1 The selected Vendor should carry out all installation/AMC tasks in close coordination with the **Security Officer** and **Chief Manager (GB/Admin)** posted at AO/RBO, depending on the Bank's requirement.
- 25.2 The selected Vendor should undertake to implement the observations / recommendations of the Bank's IS-Audit, Security Audit Team or any other audit conducted by the Bank or external agencies and any escalation in cost on this account will not be accepted by the Bank.

Note: Notwithstanding anything said above, the Bank reserves the right to reject the contract or cancel the entire process without assigning reasons thereto.

26. **Technical specification:**

26.1. CCTV System: **Appendix-5.**

Note: All necessary hardware and software required to make the solution work strictly as per technical specifications. The specifications given are minimum. Vendors can quote equivalent or higher technical specifications to meet the Bank's requirements. However no weightage would be given for higher configurations.

27 **BOQ**

- 27.1 CCTV System: **Appendix-6 and Appendix-6(a).**

28 SYSTEM REQUIREMENT -CCTV System

- 28.1 All DVR, NVR and POE switches must compliance with UL certifications. All IP cameras and NVR should conform **to ONVIF (S) standards**. The quoted camera model should also be listed in the ONVIF Website. The MAC address of the IP cameras must be registered in the name of OEM supplying the cameras.
- 28.2 The **system software should be free of cost along with the system price** and in future if any up gradation is required for running of the system than it **should be upgraded free of cost**
- 28.3 We need to install CCTV surveillance system within the branch/Office premises/ATM room/ Cash Vans to **capture, record& preserve** the good quality images of the movements of the people inside the branch and also outside the branch.
- 28.4 **The cameras, DVR/NVR and the video management software etc should be of same make/company for easy compatibility and preferably the system should be compatible for multi brand integration.**

28.5 **(A)VMS**

- i. Suitable for Middle to Large Solution
- ii. C/S Architecture · Multiple Monitors · E-Map · 256-CH
- iii. OS: Windows 10/8/7/XP/Vista/Server 2008/Server 2003

Providing easy access to live and recorded video, facility maps and alarms. The user who has the authority can configure all server and cameras settings from a central location. Utilize the left panel navigation tree structure to navigate the server and cameras as well as to access features like search out the online server and cameras automatically, check the information of the server and camera. Use Client/Server architecture, it should be a future-proof network video solution for

large projects and can manage unlimited network cameras via unlimited working servers in different locations. It's able to integrate with other cameras over ONVIF.

28.6 KEY FEATURES:

- i. Client/Server architecture, clients can add multiple servers
- ii. User-friendly UI design
- iii. Customizable user access levels
- iv. Support ONVIF
- v. Support live view, playback and E-Map functions
- vi. Support D3D display mode
- vii. Support backup recording files
- viii. Support dual stream
- ix. Support 1/2/4/6/8/9/13/16/20/24/30/36/49/64 channels playing synchronously
- x. Support H.265/H.264 video compression
- xi. Support record locally or to network storage
- xii. Support E-mail Notification
- xiii. Support 4-ch synchronized playback and up to 16-ch asynchronous playback
- xiv. Support alarm or scheduled recording
- xv. Support integrated motion detection from camera
- xvi. Support multiple monitors

Provision of online display of video images at Central Monitoring Station. The system should be Client- server architecture based to aim at providing high-speed manual/automatic operation for best performance .This live viewing should be recorded by system; the footage archiving should be possible in the external hard disc. Local Recording, simultaneous viewing and footage archiving should be possible with joystick or Mouse-Keyboard controllers shall be used for Pan, Tilt, Zoom, and other desired functions of the cameras.

- 28.7.1 System should ensure that once recorded, the video cannot be altered; ensuring the audit trail is intact for evidential purposes. System must provide built-in facility of watermarking or Digital certificate to ensure tamperproof recording for post event analysis and also these can be used as evidence at a later date, if so desired.
- 28.7.2 Inter-operability of hardware, Operating System, software, networking, printing, database connectivity, reporting, emailing, alarm notification, and communication protocols should be possible.
- 28.7.3 System expansion should be possible through off-the-shelf available hardware. Systems design should be such that expansion of 20% additional capacity should be possible. System should be scalable without performance degradation in any manner, it means adding more camera and hardware configuration should deliver the same performance as originally provided.
- 28.7.4 System shall provide sufficient storage of all the camera recordings for a period of minimum 90 days or more at 1080p or higher real time recording @ 25 FPS, using necessary compression techniques for all cameras preferable H265/ H.264 (extended capacity of cameras i.e. present capacity + 25 %).The recording frame rate & resolution for each camera shall be user programmable. Facility of camera recording in real-time mode (25 FPS)/15/12.5/10 or lower FPS as well as in any desired combination must be available in the system. Cameras should support simultaneous usage of different compression technologies for viewing and recording.

28.11 File System

- Lock Record File, Tag Video and Playback File Management
- General, Event, Tag and Picture Play back
- Common Back up, Event Backup and Picture Back up
- NAS and Disk Group Function

28.12 4K Video Viewing Experience

Should be able to direct access to 4K network cameras, it can decode 4K real-time video and recording to provide users with ultra-high-definition video viewing experience.

28.13 Optimized Hard Disk Installation

Hardware components are optimized to meet the demands for convenient and stable hard disk installation. With the 4 HDDs tightly screwed in a bracket and the bracket locked in the slots design, the hard disks are surprisingly simpler to mount and the installation time is greatly minimized.

28.14 Versatile Interfaces

Array of ports such as 2 HDMI ports, 2 VGA ports, 3 USB ports, Alarm I/O, Audio I/O and 2 LAN ports. The full set of interfaces provide all necessary features for effective surveillance.

Powerful Decoding and Recording Performance

Required robust decoding and recording performance, for this series can support synchronously decoding 4-CH 4K UHD, 8-CH 4MP and 16-CH 1080P network cameras, and synchronously recording up to 32-CH 5MP high resolution cameras.

28.15 N+1 Hot Spare

Configured as the architecture of N pcs Master NVRs and 1 hot spare slave NVR, N+1 Hot Spare guarantees the data integrity and reliability of video surveillance system. If any one of the master NVRs fails, the slave NVR can take over the data to ensure continuous video recording. Meanwhile, when the failed NVR recovered, the slave NVR will send the data back to prevent the risk of data loss.

28.16 Transcoding

Transcoding NVR web page to transcode the recorded stream into a smaller one, aiming to reduce the Network load and provide better playback performance.

28.17 Reliable ANR

Improving the reliability and stability of the storage, the function flexibly allows to automatically store video data on the network camera storage card when the network is disconnected, and retrieves them after recovery of the connection.

28.18 **Dual LAN interfaces for three network working modes**

- i. **Multi-address:**Two Ethernet interfaces use different IP addresses and work separately in LAN1 and LAN2. One of them could be chosen as default LAN to transmit data.
- ii. **Load Balance:**Two Ethernet interfaces use the same IP address. And they share the bandwidth of the system, which is aimed at increasing the throughput.
- iii. **Net Fault-tolerance:**Two Ethernet interfaces use the same IP address. One is main, and the other is for backup. If the main Ethernet interface is damaged, it will switch over to the backup one automatically to ensure normal function.

28.19 **RAID 0/1/5/6/10 Supported**

RAID (Redundant Array of Independent Disks) is a method of combining hard disks as a logical unit to achieve redundancy and greater speed of writing and reading data. There are 5 different RAID levels (0,1,5,6,10) which can be configured according to user's exact project requirements for data protection and storage space, providing reliability, high availability storage.

28.20 True Day/Night cameras are to be installed. All camera recordings shall have Camera ID, Location/Area of recording & date/time shall be programmable by the system administrator with User ID & Password. Date & time should be picked up from the system to ensure accuracy; the camera must accept external time synchronization from an NTP (Network Time Protocol) server.

28.21 All domes shall be rugged and weather proof as per specifications. The camera should be vandal proof.

28.22 **Video Content Analysis (VCA)**

VCA with 10 detection modes provides advanced, accurate smart video analysis for network cameras, enabling the comprehensive surveillance function and quicker response to different monitoring scenes. VCA with 10 functions availability, label themselves as intelligent on the basis of the powerful file system MSFS.

28.23 **IP67&IK10**

Sharply contrasting to the mini size, the AF Motorized Mini Dome Network Camera features the industry leading IP67-rated weather proofing and IK10-rated vandal proofing, which allow to protect the camera against adverse impacts to ensure the robust performance.

28.24 **3X Optical Zoom**

The 3X Optical Zoom can zoom in to distant subjects while still maintaining the clarity, delivering high quality video over the entire image.

28.25 **0.002Lux Ultra Low-light**

The AF Motorized Dome Network Camera is able to deliver high detailed color images even in the low light environments reaching 0.002Lux (Color) or 0Lux (B/W), and near infrared light environments without any supplementary lighting.

28.26 **140dB Super WDR**

Sensor-based WDR Technology allows the AF Motorized Dome Network Camera to record greater scene details with true color reproduction even under the extreme back light and high contrast conditions. The ratio that the brightest light signal values divided by the darkest light signal values is up to 140dB.

28.27 **Smart IR II Technology**

To Maximize the IR performance, the AF Motorized Dome Network Camera innovated both in the structure and technology. The advanced Smart IR performance with the combination of one High Beam and two Low Beams and adjustable illumination intensity. The infrared light transmittance is greatly increased with IR anti-reflection panel which is well designed for better IR effect.

28.28 **Axis Mechanical Design**

The AF Motorized Dome Network Camera Features 3-axis mechanical design for fast and easy adjustment of the camera's viewing angle, allowing you to position the camera precisely.

28.29 **Advanced Built-in Microphone**

With the built-in microphone which adopts the advanced codec, the AF Motorized Dome Network Camera is able to provide clearer voice. It is worth mentioning that uses PTFE Membrane to safeguard the built-in microphone, ensuring IP67-rated weather proof capability for reliable performance.

28.30 **Integrated Junction Box**

The well-designed Integrated Junction Box especially the Clamshell structure ensures efficient and simple installations. It enlarges the space to make cable connection neat and as easy as a piece of cake. With the help of the rubber plugs and rubber ring which guarantee IP67-rated weather –proof capability, the Junction box is able to offer stable operation in any tough conditions.

28.31 **SIP/VoIP Support**

H.265+ AF Motorized Dome Network Camera Features industry leading SIP/VoIP function and video streaming for mobile phones and video phones.

28.32 IP camera must support activity controlled frame rate control to automatically adjust frame rate depending on motion in scene. The camera shall provide support for restricting access to pre-defined IP addresses only, so-called IP address filtering. The MAC () address of the IP cameras must be registered in the name of OEM supplying the cameras.

28.33 All the indoor cameras & control equipment shall be suitable for operation from **10 ° C to 40° C** and relative humidity up to 80 % non-condensing. Cameras & other equipment, meant for outdoor installations, shall be suitable to work from (-) 10° C to (+) 50° C with RH up to 90% non-condensing. This temperature range may be achieved with or without heater.

28.34 The CCTV System shall operate on 180-250V, 50Hz single -phase power supply. Power for all the equipment will be conditioned using on-line UPS with minimum 30 minutes or more back up.

28.35 System shall be triplex i.e. it should provide facility of Viewing, Recording & Replay, simultaneously.

28.36 The offered system shall have facility to export the desired portion of clipping (from a, desired date/time to another desired date/time) on CD or DVD or pendrive or external harddisk. Viewing of this recording shall be possible on standard PC using standard software like windows media player etc and also should be able to generate still images in standard formats like jpeg, psd, jpg etc. from the recorded data.

28.37 Redundancy/Fail- safe feature is required.

28.38 All cameras must be provided with suitable original mounts/housings (wall, dome etc) with dust proof cover.

28.39 **Video Surveillance Application Software (or VMS):**

- i. The software is required to generate reports of stored device configuration. The control software is required to provide alarm and alarm log. The log shall be able to be achieved, printed and displayed using a device filter a device group filter and/or a time window and can customized as per requirement.
- ii. It should have recording modes viz. continuous, manual, or programmed modes on date, time and camera-wise. It should provide programmable motion detection and recording, to be defined area wise.
- iii. The CCTV application should allow retrieval of data instantaneously or any date / time interval chosen through search functionality of the application software. In case data is older than 90 days, the retrieval should be possible if available.
- iv. **Storage:** Data storage should be at a central location. The capacity of the storage should be equal to 90 days of recoding of all cameras at 1080P or higher real-time recording@25 fps. The system should follow FIFO on recording.
- v. 2DVR/ NVR should have Customer-specific settings, the local time & date, event functionality and video configuration shall be stored in a non-volatile memory and there should be Zero data loss during power cuts or soft resets. It shall be equipped with a minimum of 4MB Flash memory and 16MB RAM memory. Depending on the current settings, this memory will allow the buffering of up to 1.2 MB of pre & post alarm recordings.

PART - 29. TERMS AND CONDITIONS OF CONTRACT (TCC)

29.1 Definitions : In this Contract, the following terms shall be interpreted as indicated:

29.1.1 "The Bank" means State Bank of India.

29.1.2 "The Contract" means the agreement entered into between the Bank and the Vendor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;

29.1.3 "Vendor" is the bidder who will participate in the tender process and also covers those who will be successfully empanelled in the Bank.

29.1.4 "The Contract Price" means the price payable to the Vendor under the Contract for the full and proper performance of its contractual obligations;

29.1.5 "The Equipment" means all the security hardware / software and / or services which the Vendor is required to supply to the Bank under the Contract;

- 29.1.6 "The Services" means those services ancillary to the supply of the Products, such as transportation and insurance, installation, commissioning, customization, provision of technical assistance, training, maintenance and other such obligations of the Vendor covered under the Contract;
- 29.1.7 "TCC" means the Terms and Conditions of Contract contained in this section;
- 29.1.8 "The Project" means supply, installation, testing and commissioning of Security hardware / software & services. It also includes maintenance of the equipment.
- 29.1.9 "The Project Site" means various branches / offices/cells/ATMs/Kiosks of the State Bank of India in the state of Gujarat and UTS of Diu, Daman and Dadra&Nagar where the equipment is to be supplied, installed and commissioned/ maintained.
- 29.1.10 " AO/RBO" means Administrative Office/ Regional Business Office of State Bank of India.

In case of a difference of opinion on the part of the Vendor in comprehending and/or interpreting any clause / provision of the Bid Document after submission of the Bid, the interpretation by the Bank shall be binding and final on the Vendor.

29.2 The Scope of Work shall include supply, delivery at site, unloading, any other services associated with the delivery of equipment and installation, cabling, commissioning, software optimization/customizations, providing warranty/Post warranty services (i.e. Annual Maintenance Contract) for the equipment and any other related accessories/services for the complete installation and commissioning of system. Annual Maintenance Contract (AMC) of the existing security system. The required back to back supported certificate from manufacturer of the existing Security Equipment will be arranged by the vendor.

29.3. Country of Origin / Eligibility of Goods & Services

- 29.3.1 All goods and related services to be supplied under the Contract shall have their origin in eligible source countries, as per the prevailing Import Trade Control Regulations in India.
- 29.3.2 VENDOR WARRANTS THAT THE EQUIPMENT supplied shall be brand new, free from all defects in fault and material, and manufacture and shall be of the highest grade and quality and consistent with the established and generally accepted standards for material of the type shall be in full conformity with the specifications, drawings and samples, if any, and shall operate properly. VENDOR shall be fully responsible for its efficient operation.
- 29.3.3 Vendor further confirm that all the components /parts /assembly / software etc. used in the equipment to be supplied shall be original new components / parts / assembly / software only, from respective OEMs of the products and that no refurbished / duplicate / second hand components /parts/ assembly / software shall be supplied or shall be used. He also undertakes to produce certificate from the Original Equipment Manufacturers (if required) in support of the above statement at the time of delivery / installation.
- 29.3.4 In case of default and the Bank finds that the above conditions are not complied with, than the vendor will take back the equipment supplied and return the money paid by Bank, in full within seven days of intimation of the same by the Bank, without demur or any reference to a third party and without prejudice to any remedies the Bank may deem fit.
- 29.3.5 In case of default and vendor is unable to comply with above at the time of delivery or during installation, for the Security Hardware / Software already billed, he will take back the security equipments without demur, if already supplied and return the money if any paid to him by the Bank in this regard.

- 29.3.6 **In event of any information/ data/ particulars proven to be incorrect the Bank will have the to disqualify the vendor from the bid and in event of any details submitted turned out to be false during the tenure of AMC the Bank is at discretion to forfeit the EMD/ Security money deposit towards performance security and terminate the Service Level Agreement.**
- 29.3.7 VENDOR further certifies that the sale of the software system to the Bank and use thereof do not infringe any provisions of the various laws related to patents, trademarks, copy rights or other intellectual property rights. **The software will be free uploaded along with the security equipment cost** and will be upgraded free of cost in further if required for the smooth functioning of security equipment.
- 29.4. **Use of Contract Documents and Information**
- 29.4.1 The Vendor shall not, without the Bank's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Bank in connection therewith, to any person other than a person employed by the Vendor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- 29.4.2 The Vendor shall not, without the Bank's prior written consent, make use of any document or information except for purposes of performing the Contract.
- 29.4.3 Any document, other than the Contract itself, shall remain the property of the Bank and shall be returned (in all copies) to the Bank on completion of the Vendor's performance under the Contract, if so required by the Bank.
- 29.4.4 The Vendor will treat as confidential all data and information about the Bank, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Bank.
- 29.5. **Patent Rights/Intellectual Property Rights :**
- 29.5.1 THE VENDOR shall warrant that the repair and maintenance service/products offered for sale do not violate or infringe upon any patent, copyright, trade secret or other property right of any other person or other entity. THE VENDOR shall indemnify SBI from any claim, directly or indirectly resulting from or arising out of any breach or claimed breach or infringement of patent/ copy right /license/trade secret or other property right of any other person or other entity for the hardware/peripherals/equipment sourced either from third parties or from themselves.
- 29.5.2 In the event of any claim asserted by a third party of infringement of trademark, trade names, copyright, patent, intellectual property rights or industrial design rights arising from the use of the Products or any part thereof in India, the Vendor shall act expeditiously to extinguish such claim. If the Vendor fails to comply and the Bank is required to pay compensation to a third party resulting from such infringement, the Vendor shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Bank will give notice to the Vendor of such claim, if it is made, without delay. **The Vendor shall indemnify the Bank against all third party claims.**
- 29.6 **Inspection and Quality Control Tests**
- 29.6.1 The SBI/MS/Bank reserves the right to carry out pre-shipment factory / godown inspection at **the location of vendor** by a team of Bank officials or demand a demonstration of the solution proposed on a representative model in Vendor's

office. Reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors, at no charge to the SBIIMS/Bank.

29.6.2 Nothing stated hereinabove shall in any way release the Vendor from any warranty or other obligations under this contract.

29.7 **Delivery/Installation Schedule & Penalty for Delayed Deliveries/Installations**

29.7.1 Delivery and installation of security equipment should be within **15 days** from date of placing of work order.

29.7.2 In the event of the equipment not being delivered, installed, tested and commissioned within a period **of 15 days** from date of work Order, a penalty of .5 percent of the total consideration for each week or part thereof the delay, subject to maximum amount of five (05) percent of the total consideration will be charged to vendor.

29.7.3 This amount of penalty so calculated shall be deducted at the time of making final payment after successful installation and commissioning of Security equipment.

29.7.4 In event of further delay in installation or maintenance visit, the Bank reserves the right to cancel the Work Order/ AMC and forfeit the EMD/Security money deposit. In the event of such cancellation, the vendor is not entitled to any compensation. **Please note the installation/maintenance schedule shall be followed strictly as stipulated. Any delay shall be viewed seriously and penalties levied.**

29.8 **Delivery/ Installation & Documentation**

29.8.1 Delivery/Installation of the equipment shall be made by the Vendor in accordance with the system approved / ordered. The details of the documents to be furnished by the Vendor are specified hereunder :-

(a) 2 copies of Vendor's Invoice showing Contract number, Products description along with serial number and Part number, quantity, unit price and Total amount, bar code should be pasted in the installation certificate. **(Appendix-7)**

(b) Manufacturer's / Vendor's warranty certificate, User manuals , CDs etc

29.8.2 The above documents shall be handed over by the vendor to the branch on handing over the security equipment to the branch. Payment will be released after handing of the above mentioned documents.

29.8.3 Delivery, Installation and commissioning of the equipment shall be made by the vendor in accordance with the system approved / ordered.

29.8.4 **For the System & other Software, the following will apply:**

(a) The Vendor shall provide **free licensed software** for all software products whether developed by it or acquired from others. There shall not be any default in this regard.

(b) In case the Vendor is providing software which is not his proprietary software then the Vendor must submit evidence in the form of agreement he has entered into with the software vendor which includes support from the software vendor for the proposed software for the **full period required** by the Bank.

(c) The vendor shall explicitly absolve the Bank of any responsibility / liability for use of system / application software delivered along with the equipment, (i.e. the vendor shall absolve the Bank in all cases of possible litigation / claims arising out of any copyright / license violation) for software(s) published either by third parties, or by themselves.

29.9 **Acceptance Procedure:** On successful completion of installation, commissioning, acceptability test, receipt of deliverables, etc., the installation certificate **(Appendix-7)** signed by the Vendor and the representative of the Bank will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems.

29.10 Insurance :

29.10.1 The security equipment during defect liability period/ warranty period will be covered under insurance. Should any loss or damage occur, the Vendor shall promptly make arrangements for repair and / or replacement of any damaged item irrespective of settlement of claim by the underwriters.

29.11 Warranty / Uptime / Penalty :

29.11.1 The Vendor warrants that the products supplied under the Contract are new, unused, of the most recent or current model and they incorporate all recent improvements in design and / or features. The Vendor further warrants that all the Products supplied under this Contract shall have no defect, arising from design or from any act of omission of the Vendor that may develop under normal use of the supplied products in the conditions prevailing in India.

29.11.2 **Warranty for Hardware Components** : Onsite comprehensive warranty for all the hardware components including free replacement of spares, parts, kits as and when necessary will be 12 months from date of installation, commissioning and handing over of the equipment to the Bank. **Warranty on DVR/NVR, switches and cameras will be of 02 years** .Warranty for the System Software/off-the-shelf Software will be provided to the Bank as per the general conditions of sale of such software.

29.11.3 All of the terms, warranties and benefits granted by VENDOR herein are comparable to or better than the equivalent terms being offered by VENDOR to any of its present customers. If VENDOR shall, during the terms of this Agreement, enter into arrangements with any of its customers providing greater benefits or more favourable terms, this Agreement shall thereupon be deemed to provide the same to the Bank.

29.11.4 The Vendor shall in addition comply with the performance guarantees specified under the Contract. If, for reasons attributable to the Vendor, these guarantees are not attained in whole or in part the Vendor shall make such changes, modifications and / or additions to the Products or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests.

29.11.5 **On-site comprehensive warranty:** The warranty would be on-site and comprehensive in nature and back to back support from the OEM. The vendor will warrant all the hardware and software against defects arising out of faulty design, materials and media workmanship etc. for a period of **one year from the date of commissioning** and handing over of the equipment to the Bank. **Warranty on DVR/NVR, switches and cameras will be of 02 years**. The Vendor shall repair or replace worn out or defective parts of the equipment at his own cost including the cost of transport. No charges, fees, accommodation, boarding, etc, shall be paid or provided by SBI to the service engineer or assistants.

29.11.6 Any penalty due during the Warranty period will be adjusted against the 10% retention money held by the respective branch for defect liability period or in the security deposit retained by the Bank.

29.11.7 **Preventive maintenance:** the VENDOR shall conduct Preventive Maintenance (including but not limited to inspection, testing, satisfactory execution of all diagnostics, cleaning and removal of dust and dirt from the interior and exterior of the equipment, and necessary repair of the equipment) **quarterly of newly installed as well as existing security equipments.** Vendor will arrange for all necessary authorization certificates for back to back support for maintenance of the existing security system from the manufacturer of the equipment. During the term of the contract, the VENDOR will maintain the equipment in perfect working order and condition and for this purpose will provide the following repairs and maintenance services :

- a) Free maintenance services during the period of warranty. Professionally qualified personnel who have expertise in the hardware and system software supplied by the vendor will provide these services.
- b) The Vendor shall rectify any defects, faults and failures in the equipment and shall repair/replace worn out or defective parts of the equipment during working hours i.e. from **09.00 A.M. to 07.00 P.M.** on all working days (viz. Monday to Saturday). In case any defects, faults and failures in the equipment could not be repaired or rectified during the said period, the engineers of the VENDOR are required to accomplish their duties beyond the said schedules in case of any situation if it warrants. In cases where unserviceable parts of the equipment need replacement, the VENDOR shall replace such parts, at no extra cost to the BANK, with brand new parts or those equivalent to new parts in performance. For this purpose the VENDOR shall keep sufficient stock of **spares for 05 years from date of installation of equipment.**
- c) The maximum response time for a maintenance complaint from the site of installation (i.e. time required for Vendor's maintenance engineers to report to the installations after a request call / fax /e-mail is made or letter is written) **shall not exceed 36 hours.**
- d) The VENDOR shall ensure that faults and failures intimated by Bank as above are set right within 36 hours of being informed of the same.
- e) The VENDOR shall ensure that the full configuration of the equipment is available to the BANK in proper working condition viz. uptime of 95% of the time on a 24x7x365 basis.
- f) In the event of the equipment not being repaired or a workable solution not provided during Warranty period, a penalty of **0.5 percent** of the total consideration for each week or part thereof the delay, subject to maximum amount of **five (05) percent** of the total consideration will be charged to vendor. The vendor may provide temporary equivalent replacement as a workable solution to avoid the above penalty.
- g) All engineering changes generally adopted hereafter by the VENDOR for equipment similar to that covered by this AGREEMENT, shall be made to the equipment at no cost to the Bank.
- h) Qualified maintenance engineers totally familiar with the equipment shall perform all repairs and maintenance service described herein.
- i) The Bank shall maintain a Security register at its site in which, the Bank's operator / supervisor shall record each event of failure and / of malfunction of the equipment. The VENDOR's engineer shall enter the details of the action taken in such register. Additionally every time a preventive or corrective maintenance is carried out, the VENDOR'S engineer shall make, effect in duplicate, a field call report which shall be signed by him and thereafter countersigned by the Bank's official. **AMC visit will be only counted when in the report system and all its accessory will be marks**

as working properly. The original of the field call report shall be handed over to the Bank's official.

- j) The VENDOR shall provide replacement equipment of similar brand or similar brand with higher make if any equipment is taken out of the premises for repairs.
- k) The obligations expressed under the warranty expressed above shall include all costs relating to labour, spares, maintenance (preventive, unscheduled), and transport charges from site to manufacturer's works and back for repair/adjustment; or replacement at site of any part of the equipment which under the normal and proper use and maintenance proves defective in design, material or workmanship or fails to conform to the specifications given by the purchaser to VENDOR.
- l) VENDOR shall further ensure that the EQUIPMENT is not down at any time for want of spare parts.
- m) VENDOR shall provide repair and maintenance service, in response to oral, including telephone, **watsapp** notice by the Bank, within 36 hours and also provide a **complaint number** for tracking the complaint status. VENDOR shall ensure that faults and failures intimated by the Bank at above are set right within 36 hours of being reported.
- n) VENDOR shall also guarantee that there shall not be more than five failures in any calendar quarter at any site of the peripherals being supplied. In the event of more than five failures in these critical components, VENDOR shall REPLACE the defective equipment with NEW equipment of same make, model or better configuration in same rates, acceptable to SBI, immediately.
- o) During the maintenance visit the technician will give training to the staff available on the handling and maintenance of the equipment.
- p) The vendor should undertake to implement the observations / recommendations of the Bank's IS-Audit, Security Audit Team or any other audit conducted by the Bank or external agencies and any escalation in cost on this account will not be accepted by the Bank.
- q) The selected Vendor should carry out all installation/AMC tasks in close coordination with the Security Officer and Chief Manager (GB/Admin) posted at AO/RBO, depending on the Bank's requirement.
- r) During the period of contract due to any reason if there is shortage of spares or the selected model is not available in the market than the company will provide another model, same brand with equivalent configuration or higher on same rates and terms and conditions which should be accepted by the Bank.

29.11.8 **Transfer of ownership:** Transfer of ownership of the property shall be effective as soon as the equipment is installed, tested and commissioned at the SITE and accepted by SBI. While repairing, any worn or defective parts replaced by the VENDOR and the parts replacing the withdrawn parts shall become the property of Bank.

29.11.9. The VENDOR's maintenance personnel shall be given access to the equipment when necessary, for purpose of performing the repair and maintenance services indicated in this agreement on showing of identity card issued by the vendor to its technician.

29.11.10. However if Bank desires to shift the equipment to a new site and install it thereof urgently, the VENDOR shall be informed of the same immediately. THE Bank shall bear the charges for such shifting and the VENDOR shall provide necessary arrangement to Bank in doing so. The terms of this agreement, after such shifting to the alternate site and reinstallation thereof would continue to apply and binding on the VENDOR.

29.11.11. NO term or provision hereof shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to or waiver of a breach by other, whether express or implied, shall not constitute a consent to or waiver of or excuse for another different or subsequent breach.

29.11.12. On account of any negligence, commission or omission by the engineers of the VENDOR and if any loss or damage caused to the security Equipment or to the other electronic equipments of the branch or its property, the VENDOR shall indemnify/pay/reimburse the loss suffered by the BANK to its full present cost.

29.12 . **Maintenance and Support:**

29.12.1 The Vendor shall clearly state the magnitude of the Vendor's presence in Ahmadabad and in the allotted Administrative Office/RBO (allotted) locations to provide 24x7 post implementation supports.

29.12.2 During the warranty period the vendor has to arrange quarterly visits for inspection of the equipment and provide services.

29.12.3 Comprehensive Service Level Agreements (SLA) or AMC for 03 years to be provided by vendors and will essentially have to enter in to an Annual Maintenance Contract (**Annexure-G**) for a minimum period of three year for maintenance of the system installed by them after the expiry of the warranty period .

29.12.4 Annual Maintenance of the existing security system is compulsory to be done by the vendor. If the vendor did not have back to back supported certificate from manufacturer of the existing security equipment than he will arrange for it .

29.12.5 **Annual Maintenance Contract (AMC)**

- a) After expiry of the warranty period, THE VENDOR shall provide maintenance services for the EQUIPMENT at the quoted rate submitted by him after the bidding process, for a period of three years, at quarterly intervals. The first AMC visit will be done **within** 15 days after the completion of warranty period. Then after the visit to be done quarterly basis. There should be gap of minimum 70 days between two AMC visits.
- b) The AMC charges will be payable **after each quarterly visit**, subject to satisfactory maintenance services. THE VENDOR shall not increase the AMC rate during contract period excluding the warranty period. The detailed conditions and covenants governing the AMC would be as per specimen agreement given in **Annexure – G** to this RFP. THE VENDOR shall be in position to maintain the complete equipment installed by him during the contract period. SBI may change the terms of the future AMCs, if necessary, to meet changing needs, on mutual agreement with THE VENDOR. The AMC agreement will be executed on Banks standard format.
- c) **AMC visit will be construed to be done only when the system is found to be functioning completely/ properly.** Vendor will submit maintenance certificate as given in **Appendix-8**

- d) VENDOR shall keep **sufficient standby security equipments and spares of essential kits** or parts of the EQUIPMENT all the time, as may be required to keep the downtime minimal. The VENDOR, if he chooses, may install his own standby system of identical specification/ make, if such systems are acceptable to SBI.
- e) **In case of services rendered by the VENDOR is not satisfactory, the Bank will forfeit the Security money deposit. He will be de-empanelled in the Bank for next 03 years. His work will be allotted to the other empanelled vendor.**
- f) In the event VENDOR decides to discontinue the supply of sub assemblies, kits of parts, components and spare parts for the EQUIPMENT purchased after the expiry of the said five years, VENDOR shall give **03 months** notice prior to such discontinuance and assist SBI to make alternative arrangements.
- g) All engineering changes generally adopted hereafter by VENDOR for equipment similar to that supplied, as per the schedule of work, shall be made to the EQUIPMENT at no cost to SBI.
- h) The contact details of service centre, technicians and Manager i.e. telephone numbers, Mobile No., Fax No., E-Mail id, or service focal point(s) to be provided to the Security Officer, Chief Manager (GB/Admin) of AO/ RBO. In case, there is any change, updated list should be submitted to the Bank immediately.

29.13 Security:

- a) All the employees of the Vendor/OEM must always carry/display their identity cards for authentication without which they will not be allowed entry in the Bank.
- b) VENDOR agrees that he and his personnel will at all times comply with all security regulations in effect from time to time at the Bank's premises and externally for materials belonging to the Bank.
- c) A complaint number shall be generated for all complaints received from the Bank by the Vendor for future references.
- d) The vendor will submit the list of his technicians who will visit the branch for service support to the concerned Security Officer, Chief Manager (GB/Admin) AO/ RBO. Whenever there is changes in the names of the technician, the vendor will submit the fresh list to them.

29.14. Future additions of Hardware / Software:

- (i) The Bank would have the right to:
 - a) Shift supplied systems to an alternative site of its choice.
 - b) Disconnect / connect / substitute peripherals. or devices or any equipment / software acquired from another vendor.
 - c) Expand the capacity / enhance the features / upgrade the hardware / software supplied, either from the vendor, or another vendor, or developed in-house, provided such changes or attachments do not prevent proper maintenance, from being performed or unreasonably increase the VENDOR cost of performing repair and maintenance service.
- (ii) The warranty terms would not be considered as violated if any of (a), (b) or (c) above takes place. Should there be a fault in the operations of the system, the vendor, would not unreasonably assume that the causes lie with those components / software not acquired from them.

29.15 Subcontracting:

29.15.1 The Vendor shall not assign or sub contract, in whole or in part, its obligations to perform under the Contract, except with the Bank's prior written consent.

29.15.2 The VENDOR will not subcontract or permit anyone other than The VENDOR's qualified personnel to perform any of the work, services or other performance required or The VENDOR under this agreement without the prior written consent of the bank. However, such restriction is not applicable for service/repairs/maintenance is being provided by the authorized representative of Original Equipment Manufacturer(OEM), subject to proper authorization by the VENDOR, in his presence.

29.16 CONFIDENTIALITY:

29.16.1 The VENDOR acknowledges that all material and information which has and will come into its possession or knowledge in connection with this agreement or the performance thereof, whether consisting of confidential and proprietary data or not, whose disclosure to or use by third parties may be damaging or cause loss to Bank will all times be held by it in strictest confidence and it shall not make use thereof other than for the performance of this agreement and to release it only to employees requiring such information, and not to release or disclose it to any other party. The VENDOR agrees to take appropriate action with respect to its employees to ensure that the obligations of non-use and non-disclosure of confidential information under this agreement are fully satisfied. In the event of any loss to the Bank in divulging the information by the employees of the VENDOR, the bank shall be indemnified. The VENDOR agrees to maintain the confidentiality of the Bank's information after the termination of the agreement also.

29.16.2 The VENDOR / Bank will treat as confidential all data and information about the VENDOR / Bank / Contract, obtained in the execution of this tender including any business, technical or financial information, in strict confidence and will not reveal such information to any other party.

29.17. TRAINING:

29.17.1. The Vendor shall offer in-depth training to the branch staff on the offered solution according to the following:

a) The training shall be conducted by the vendor within the branch/office premises. It will be given to the Staff at the time of installation and during AMC visits

b) This will cover the operation and handling/maintenance of the system.

c) Hands outs on training and configuration should be provided by the vendor.

d) Whenever the Bank advise, the vendor will provide training to Bank staff in handling of security equipments in **SBILD s** during training programme without any cost to the Bank. For

that the vendor will make minimum 03 training boards installed with the equipments for handling practice during the training.

29.18 Payment Terms

29.18.1 Payment shall be made in Indian Rupees.

(a) 90% of the total amount on installation, commissioning and hand over of the new equipment to the Bank .

(b) Balance 10% after the expiry of defect liability period of one year.

29.18.2 Payments will not be released for any part-shipment or short-shipments.

Note: No advance shall be paid at the time of placing the work order

29.18.3 Payment Schedule for Annual Maintenance Contract

- a) There will be quarterly visits for the AMC. Payment shall be made after each completed visit **subject to** satisfactory completion of maintenance work.
- b) Missing of one quarterly AMC visit schedule, a penalty equal to the double of the quarterly AMC visit charge will be imposed on the vendor. The same will be deducted from the AMC bill amount of the vendor or from the Security Deposit money.
- c) Repetition of missing of quarterly AMC visit will result in de-empanelment of the vendor for minimum period of three years and the work will be allotted to the other empanelled vendor.

29.19 Period of Empanelment and Performance review of the Vendors:

29.19.1 The Vendor empanelment in the Bank will be for the period of 03 years. **The validity of empanelment may further extended on the existing terms and conditions for another one year, provided that the vendor performance should be found satisfactory during the contract period.** It is to note that after the completion of 03 years if the vendor does not get de-empanelment notice from the Bank it will constitute that the vendor empanelment continues in the Bank for another one year.

29.19.2 Empanelled vendor who has not been given work order shall deposit **Rs 10,000/- (Rupees ten thousand only)** as security deposit money for empanelment. **This security deposit money will be increased proportionately as and when the vendor gets the work order.**

29.19.3 If empanelled vendor will not participate in reverse auction or commercial bid subsequently or in future within contract period, then the empanelment of the vendor will be cancelled and the security money deposited will be forfeited.

29.19.5 Those empanelled vendor who did not get any work order during the term of **three years** empanelment, their empanelment will be extended to another **one year** and so on, subject to the condition that any adverse report against their performance in the same field is not received from their existing clients.

29.19.6 Review of the performance of the all empanelled vendor will be done on half yearly basis through performance review meeting.

29.19.7 Those vendors whose performance is founded unsatisfactory will be removed from the empanelment list of the Bank for three years and penalty will be imposed as deemed fit by the Bank.

29.20 Prices

29.20.1 The quotation must be complete in itself, properly worked out to cover all THE VENDOR'S obligations under the contract and all matters and things necessary for the proper completion of the work, and the rates quoted therein must be correct and sufficient to cover THE VENDOR'S costs, overheads and profits etc, completely for the individual items of work including cost for all necessary materials and labour cost of installation, transportation, travelling, training but excluding taxes or duty levied by the Local/State/Central Government as on the date of submitting quotations, if and as applicable. **Price will be inclusive of insurance** against loss or damage by fire, theft or other usual risks during transit, and till the work is

complete at site and handed over to SBI at site in all respects according to the true meaning and intent of the contract. All the employee of the Vendor who will visit branches/offices etc will have also be covered in insurance and in case of any eventuality bank will held not liable for payment towards their insurance.

29.20.2 Prices payable to the Vendor as stated in the Contract shall be firm and not subject to change for the one year from the entry into the Contract.

29.20.3 The Vendor will pass on to the Bank, all fiscal benefits arising out of reductions, if any, in Government (Central/ State) taxes, etc. or the benefit of discounts if any announced in respect of the cost of the items for which orders have been placed during that period.

29.20.4 The Bank reserves the right to re-negotiate the prices in the event of change in the international market prices of both the hardware and software

29.20.5 The rates of the complete system along with its accessories as per the given technical specifications shall include cost of complete system installed excluding all types of taxes, levies by Government (Central/State). Installation charges will be inclusive of transport cost, transit insurance, loading - unloading, installation, testing, commissioning, etc

29.20.6 Bank may constitute a committee for assessing the price of the equipment during the term of the contract and if there is drastic reduction in the rate of any equipment (hardware and software) or its accessories, the benefit of it to be passed to the bank. In same way if the rate of any equipment or its accessories goes up drastically the vendor may approach to the Bank for it rate revision. Banks decision in it will be final and binding.

29.20.7 The price will be reviewed every year alongwith the specification. If the specification available in the market are upgraded and better than the existing one and cost equivalent or less than the existing one than same will be provided to the Bank.

29.21 **Contract Amendments:** No variation in or modification of the terms of the Contract shall be made, except by written amendment, signed by the parties.

29.21 Delays in the Vendor's Performance

29.22.1 Delivery, installation, commissioning of the Products/Solution and performance of Services shall be made by the Vendor within the timelines prescribed.

29.22.2 If at any time during performance of the Contract, the Vendor encounter conditions impeding timely delivery of the Products and performance of Services, the Vendor shall promptly notify the Bank in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Vendor's notice, the Bank shall evaluate the situation and may, at its discretion, extend the Vendors' time for performance, with or without liquidated damages, in which case, the extension shall be ratified by the parties by amendment of the Contract.

29.22.3 Except as provided in the above clause, a delay by the Vendor in the performance of its delivery obligations shall render the Vendor liable to the imposition of liquidated damages, unless an extension of time is agreed upon without the application of liquidated damages.

29.23. Penalty Clause:

29.23.1 In case of delay in completion of the project/ new installation, within the time period(s) specified in the Contract, the Bank may, without prejudice to its other

remedies under the Contract, and unless otherwise extension of time is agreed upon without the application of Liquidated Damages, deduct from the Contract Price, as liquidated damages, a sum equivalent to **0.5 percent** per week or part thereof of contract price subject to maximum deduction of **5%** of the delivered price of the delayed Products or unperformed services for each week or part thereof of delay, until actual delivery or performance. Once the maximum deduction is reached, the Bank may consider termination of the Contract.

29.23.2 After the work is completed, if the VENDOR violates the terms of the agreement, the Security Deposit shall be forfeited. In addition to the above the Bank reserves the right to claim the damages suffered or may suffer from such VENDOR/ VENDORS.

29.23.3 During the period of Annual Maintenance Contract agreement, if the VENDOR fails to provide the service as per the terms and conditions of the agreement, a penalty of **Rs 100/- per day per equipment per branch** (subject to a maximum amount of **Rs 5000/-**) shall be imposed on the VENDOR, who fails to repair the system within the agreed time period of 36 hrs from the date of reporting. The amount shall be deducted from the AMC bill/ Security deposit money or the vendor to deposit the penalty in the branch. In addition to the above the Bank reserves the right to claim the damages suffered or may suffer from such VENDOR/ VENDORS.

29.23.4 If the vendor did not attend the complaint within the time as per the agreement than the said order will be given to the other empanelled vendor. Penalty will be imposed on the vendor for any losses occurring to the bank due to non-functioning of the equipment.

29.23.5 VENDOR shall ensure that fault and failures intimated by SBI as above are diagnosed and repaired within 36 hours. If the repair work is expected to be prolonged beyond 36 hours of down time, VENDOR shall replace the defective EQUIPMENT with STANDBY EQUIPMENT immediately, and restore operation. VENDOR will be required to pay penalty @ **Rs 100/-** per day if repair works/replacement of defective equipment does not take place within the stipulated period.

29.23.6 If the vendor does not work satisfactorily than he will be de-empanelled and will not be allowed to work in Ahmedabad Circle for minimum period of three years. His work order/ AMC work will be given to other empanelled vendor.

29.23.7 If the vendor will installed sub standard material or duplicate material or non approved security equipment and its accessories he will be de-empanelled and will not be allowed to work in Ahmedabad Circle for minimum period of three years and the Security Deposit shall be forfeited.

29.23.8 In case the allotted AO/Region is not satisfied with the services of the vendor, on their recommendation the area of the vendor will be decreased or he will be removed from the AO/Region .

29.24 **Security deposit:**

29.24.1. An EMD of **Rs Two lakhs only** shall be deposited by the empanelled vendors in the form of a Demand Draft in favour of the "SBI Infra Management Solutions Pvt Ltd, Ahmedabad", payable at Ahmedabad along for participating in the tender process (Online commercial Bid).

29.24.2. **05% of** the total contract value less the EMD paid or **minimum Rupees one lacs** shall be deposited in form of a demand Draft in favour of the "AGM (P&E), SBI LHO Ahmedabad", payable at Ahmedabad within 07 days from

- the **date of getting work order** by L1, L2, L3 , L4, L5 as Security deposit amount for the entire AMC period.
- 29.24.4 In case the shortlisted vendor backs out and refuses to work, the EMD/Security money deposit shall be forfeited and the vendor will be debarred for 03 years from taking part in the future security equipment tenders floated by the bank for its Ahmedabad circle branches.

29.25 Termination for Default

29.25.1 The Bank, without prejudice to any other remedy for breach of Contract, by a written notice of default sent to the Vendor, may terminate the Contract in whole or in part:

- (a) If the Vendor fails to deliver any or all of the Products and Services within the period(s) specified in the Contract, or within any extension thereof granted by the Bank;

Or

- (b) If the Vendor fails to perform any other obligation(s) under the Contract.

29.25.2 In the event the Bank terminates the Contract the vendor will not be allowed to take part in any further tender of security system for next 03 years from the date the Banks terminates the contract.

29.26 Force Majeure

29.26.1 Notwithstanding the provisions of TCC, the Vendor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that the delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

29.26.2 For purposes of this clause, "**Force Majeure**" means an event beyond the control of the Vendor and not involving the Vendor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Bank in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

29.26.3 If a Force Majeure situation arises, the Vendor shall promptly notify the Bank in writing of such condition and the cause thereof. Unless otherwise directed by the Bank in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

29.27 **Termination for Insolvency** : The Bank may, at any time, terminate the Contract by giving written notice to the Vendor if the Vendor becomes Bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Bank.

29.28 Termination for Convenience : The Bank, by written notice sent to the Vendor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Bank's convenience, the extent to which performance of the Vendor under the Contract is terminated, and the date upon which such termination becomes effective.

29.29 Resolution of Disputes :

29.29.1 The Bank and the Vendor shall make every effort to resolve amicably by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.

29.29.2 If, the Bank and the Vendor have been unable to resolve amicably a Contract dispute even after a reasonably long period, either party may require that the dispute be referred for resolution to the formal mechanisms specified herein below. These mechanisms may include, but are not restricted to, conciliation mediated by a third party and/or adjudication in an agreed national forum.

29.29.3 The dispute resolution mechanism to be applied shall be as follows:

- (a) In case of Dispute or difference arising between the Bank and the Vendor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. Where the value of the Contract is above Rs.1.00 Crore, the arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by the Bank and the Vendor. The third Arbitrator shall be chosen by mutual discussion between the Bank and the Vendor. Where the value of the contract is Rs.1.00 Crore and below, the disputes or differences arising shall be referred to a Sole Arbitrator who shall be appointed by agreement between the parties.
- (b) Arbitration proceedings shall be held at State Bank of India Local Head Office Ahmedabad and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English;
- (c) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc., of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself; and

29.30 Governing Language : The governing language shall be English.

29.31 **Applicable Law :** The Contract shall be interpreted in accordance with the laws of the Union of India and shall be subject to the exclusive **jurisdiction of courts at Ahmedabad.**

29.32 Addresses for Notices

29.32.1 The following shall be the address of the Bank and Vendor.

Bank's address for notice purposes:

**Circle Security Department,
3rd Floor, Local head Office,
State Bank of India,
Bhadra, Laldarwaja,
Ahmedabad-380001**

Vendor's address for notice purposes

<To be filled in by the Vendor>

29.32.2 A notice shall be effective when delivered or on effective date of the notice whichever is later.

29.33 Taxes and Duties

29.33.1 The Vendor will be entirely responsible for all applicable taxes of Central / State Government license fees, **road permits**, GST etc. in connection with delivery of products at site including incidental services and commissioning.

- 29.33.2 Income / Corporate Taxes in India: The Vendor shall be liable to pay all corporate taxes and income tax that shall be levied according to the laws and regulations applicable from time to time in India and the price bid by the Vendor shall include all such taxes in the contract price.
- 29.33.3 Tax deduction at Source: Wherever the laws and regulations require deduction of such taxes at the source of payment, the Bank shall effect such deductions from the payment due to the Vendor. The remittance of amounts so deducted and issuance of certificate for such deductions shall be made by the Bank as per the laws and regulations in force. Nothing in the Contract shall relieve the Vendor from his responsibility to pay any tax that may be levied in India on income and profits made by the Vendor in respect of this contract.
- 29.33.4 The Vendor shall make his own arrangement for the engagement of all labour and shall be responsible for regulating their service and work conditions in conformity with all Acts, Regulations, Rules or Order of Competent Authority under relevant laws in force during the contract period. Vendor shall indemnify the Bank from all claims relating to Workers/Staff/Sub-Vendor's Salaries, Wages, Overtime, Leave, Provident Fund, ESI, Medical Facilities, Gratuity, Bonds or any other claim as applicable and stipulated in any Statutory provisions, rules or order of Competent Authority.
- 29.34 **Vendor's obligations**
- 29.34.1 The Vendor is responsible for and obliged to conduct all contracted activities in accordance with the contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.
- 29.34.2 The vendor will be responsible for arranging and procuring all relevant permissions / Road Permits etc. for transportation of the equipment to the location where installation is to be done. The Bank would only provide necessary letters for enabling procurement of the same.
- 29.34.3 The Vendor is obliged to work closely with the Bank's staff, act within its own authority and abide by directives issued by the Bank and implementation activities.
- 29.34.4 The Vendor will abide by the job safety measures prevalent in India including the insurance coverage of its staff and will free the Bank from all demands or responsibilities arising from accidents or loss of life, the cause of which is the Vendor's negligence/ or during performance of any work in the Bank. The Vendor will pay all indemnities arising from such incidents and will not hold the Bank responsible or obligated.
- 29.34.5 The Vendor shall issue Photo-Identify Cards to all its employees who would be deployed for the survey / installation / maintenance or any other job for the system. The Photo-Identify Cards shall be signed by the employee concerned, the authorized signatory of Vendor, Photo copy of such Photo-Identify Cards to be deposited with the Circle Security Department. The Vendor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanors.
- 29.34.6 The Vendor will treat as confidential all data and information about the Bank, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Bank.
- 29.35 **Right to use defective product :** If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the product

is found to be unsatisfactory, the Bank shall have the right to continue to operate or use such product until rectification of defects, errors or omissions by partial or complete replacement is made without interfering with the Bank's operation.

(To be furnished on Vendor's letter head)

Date: _____

To:
**Vice President & Circle Head,
SBI Infra Management Solutions Pvt Ltd,
3rd Floor, Local head Office,
SBI LHO Building,
Bhadra, Laldarwaja,
Ahmedabad-380001**

Dear Sir,

**APPLICATION FOR PRE-QUALIFICATION/EMPANELMENT OF VENDORS FOR
SUPPLY, INSTALLATION AND MAINTENANCE OF CCTV SYSTEM IN STATE BANK
OF INDIA AHMEDABAD CIRCLE**

With reference to your advertisement dated _____ for the captioned work, we enclose herewith for your kind consideration our Company profile in the format provided by you in the **Appendix- 1** along with necessary supporting papers signed and sealed by the authorized signatory of the firm. We confirm that the details furnished by us are true and correct.

2. We undertake to produce the original of all the papers/ documents attached herewith as and when asked for by the Bank and shall extend all assistance to the Bank Authorities for the purpose of empanelment.

3. We hereby undertake and agree to abide by all the terms and conditions stipulated by the Bank in the REQUEST FOR PROPOSAL (RFP).

4. In case of our empanelment, we shall participate and submit the commercial bid (Offline/ online) on the date advised to us. We shall also abide by the Business Rules prescribed for auction. We also confirm that our company will provide **digital signature if advised by the Bank** for participating in the reverse auction.

5. We clearly understand and undertake that mere submission of application does not guarantee for our empanelment and Bank's decision in this regard will be final and binding on us. We submit this application in token of our acceptance of the terms & conditions laid down in this advertisement.

Dated this day of 2020

(Signature)

(Name)

(In the capacity of)

seal

Duly authorised to sign Bid for and on behalf of

Appendix- 2

LIST OF CLIENTS

Sr No	Client's Name &Address	Contact Person name and mobile number	Year	Whether still doing AMC of the system

Appendix- 3

WORK EXPERIENCE
CCTV SYSTEM

Sr No	Client's Name &Address	Order value	Date of Completion	Installation done in total number of branches

Note: Work Completion Certificate and work-order to be placed together i.e first work completion certificate to be placed follow by it should be work order letters.

Appendix-4

Bid documents should be submitted as per the following order:

1. Application for empanelment (Annexure-A).
2. Details of Manufacturers/Firms/Companies/Dealers/Vendor (Appendix-1).
3. Turnover and profit and loss statement.
4. A valid Direct Authorized Dealer Certificate from ODM / OEM .Back to back support certificate **for 05 years** i.e MAF (Annexure B).
5. Applicant PAN and GST Number proof.
6. Latest Banker's Solvency Certificate (in original) worth **Rs. 10 lakhs** alongwith Banking details.
7. ISO Certification, if any.
8. List of Support offices or Sub offices / dealers submitted. Proof of the office existence for minimum **three years** before the date of the tender (copy of certificate issued under Shops and Establishment Acts).
9. List of clients (appendix-2)(Old and Current)
10. Satisfactory Performance Certificate from clients (old as well as current) whose work order shown and where company is currently empanelled.
11. Work experience (Appendix-3).
12. Work completion certificate and work orders (for which work completion certificate given). It is to note that ever work completion certificate should be followed by the work orders for which it has been given in symmetrical fashion.
13. Service level Agreement or any other documents showing empanelment with 03 Banks (Public/Private) at National level and 02 Banks (Public/Private)in Gujarat State.
14. Product certification and product literature.
15. Signed RFP documents.
16. Tender processing fees.

Annexure – B

No. _____

Date:

To:

**Vice President & Circle Head,
SBI Infra Management Solutions Pvt Ltd,
3rd Floor, SBI LHO Building,
Bhadra, Laldarwaja,
Ahmedabad-380001**

Dear Sir,

SUBJECT: MANUFACTURERS'/PRODUCERS' AUTHORIZATION FORM

We _____ registered office at _____ having joint venture / authorized dealer etc. with _____, who are established and leading manufacturer of **CCTV products**, do hereby authorize M/s _____ having their registered office at _____ to submit quote, negotiate, supply, install and provide after sales support for our range of under mentioned products quoted by them to meet the above mentioned tender:-

Sr.No	Product	Company	Remarks
1	CCTV System		

2. We also confirm that the above products meet the Technical specifications/ features as per the RFP.

3. We as OEM are responsible that the System Integrator uses genuine products. We will conduct Audit of the products being installed by the System Integrator, as and when required by the Bank without any extra cost, as a service support to the Bank.

4. We hereby confirm to extend our back to back technical support and meet warranty terms of ____ years. Also, we as an OEM assure that the quoted models are not end of life and necessary spares would be provided at cost to bidder for period of **five years**, as per OEM standards for this tender/project.

5. We duly authorise the said System Integrator/vendor to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the contract.

Thanking you,

Yours faithfully,

Authorised Signatories
(Name & Designation, seal of the OEM)
Contact No. E-Mail Address

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

FORMAT FOR EMD

(To be furnished on Vendor's letter head)
(NOT TO BE FILLED AND SUBMITTED NOW)

To:

**Vice President & Circle Head,
SBI Infra Management Solutions Pvt Ltd,
3rd Floor, SBI LHO Building,
Bhadra, Laldarwaja,
Ahmedabad-380001**

Dear Sir,

**EMD FOR PARTICIPATION IN TENDERING PROCESS FOR
PRE-QUALIFICATION/EMPANELMENT OF VENDORS FOR SUPPLY, INSTALLATION,
COMMISSIONING, TESTING, CERTIFICATION AND MAINTENANCE OF CCTV
SYSTEM IN STATE BANK OF INDIA , AHMEDABAD CIRCLE**

With reference to the captioned subject, we intent to participate in the tender process for empanelment of vendors for supply, installation, commissioning, testing, certification and maintenance of CCTV system in the branches/ offices/ ATMs in State Bank of India , Ahmedabad Circle spread over in the state of Gujarat and UTs of Diu, Daman and Dadra & Nagar Haveli.

2. As per the terms and conditions of RFP, we submit draft No. _____ dated _____ for a sum of Rs. _____/- (Rupees _____ Only) as EMD.

3. We undertake that in the event of not performing the obligations as per the terms and conditions of the RFP or have committed a breach thereof, which conclusion shall be binding on us, the EMD will be forfeited.

Yours faithfully,

For and on behalf of

Authorized official.

Seal

Date:

(To be furnished on Vendor's letter head)

Annexure –D

Letter No:

Date:

**The Vice President & Circle Head,
SBI Infra Management Solutions Pvt. Ltd,
SBI LHO Building, 3rd Floor,
Bhadra, Lal darwaja
Ahmedabad, 380001 (Gujarat)**

Dear Sir,

PRE-QUALIFICATION/EMANELMENT OF VENDORS FOR SUPPLY, INSTALLATION, COMMISSIONING, TESTING, CERTIFICATION AND MAINTENANCE OF CCTV SYSTEM IN STATE BANK OF INDIA , AHMEDABAD CIRCLE: ACCEPTANCE OF OFFER

With reference to above, We hereby agree to abide by all terms and conditions laid down in commercial bid document and also agree to the following:

- i) We forward herewith a security money deposit of Rs. We also agree to the fact that the Security Deposit (SD) will be held in Current A/c. of SBI and will not carry any interest thereon till the time it is returned to us.
- ii) The empanelment will continue, subject to satisfactory performance of the contract.
- iii) We also confirm that mere empanelment does not ensure us the right to be invited to participate in all/any bids/ quotations/tenders/ projects and/or to get work.
- iv) We also confirm that various certificate/ authority letters as applicable will be renewed in time and renewed copies of the same should be submitted to the Bank for the record.
- v) We also confirm that we will respond to the enquiries by the Bank without fail, as & when sent to us. If we do not respond, our firm will be delisted from Bank's list of empanelment without any further notice.
- vi) Whenever any work order will be given to us, it is compulsory to enter/sign the agreement between Bank and us before the commencement of the work. Terms and conditions will be form the part of the contract.
- vii) We also certify that the information /data/particulars furnished in our bids are factually correct. We also accept that in event of any information/ data/ particulars proven to be incorrect the Bank will have the right to disqualify and de-empanel us and in event of any details submitted turned out to be false during the tenure of AMC the Bank is at discretion to forfeit the EMD/Security deposit towards performance security and terminate the AMC.

Yours faithfully,

(Signature of the Vendor)

Stamp

Annexure - E

DETAILS OF ePROCUREMENT REVERSE AUCTION

<p>AUCTION TO BE CONDUCTED BY</p>	<p>e-Procurement Technologies . Ltd. (abcprocure.com) B-704/705, Wall Street - II, Opp. Orient Club,Nr. Gujarat College, Ahmedabad - 380 006. Gujarat State, India</p> <p>Tel.:- 91 - 079 - 4001 6824 (Mr Sivam) / 40016815</p> <p>Fax:- 91 - 079 - 4001 6876 Email: shivam@auctiontiger.net</p> <p>https://SBI.abcprocure.com</p>
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(To be furnished on Vendor's letter head)
(NOT TO BE SUBMITTED NOW)

To:

**Vice President & Circle Head,
SBI Infra Management Solutions Pvt. Ltd.,
3rd Floor, SBI LHO Building,
Bhadra, Laldarwaja,
Ahmedabad-380001**

Dear Sir,

PRICE BID PROPOSAL

Having examined the Bidding Documents, the receipt of which is hereby duly acknowledged, we, the undersigned, submit our Price Bid for supply, installation, testing, commissioning & AMC of the **CCTV System** in conformity with the said Bidding documents as under

Rs. _____ (Rupees _____) *(Total Proposal amount in words and figures)*. All inclusive excluding taxes for Appendix-6

Rs. _____ (Rupees _____) *(Total Proposal amount in words and figures)*. All inclusive excluding taxes for Appendix-6 (a)

The price-break up as per the BOQ at Appendix-6 and 6(a) is enclosed

2. While submitting this bid, we certify that:

- The undersigned is authorized to sign on behalf of the VENDOR and the necessary support document delegating this authority is enclosed to this letter.
- Price bid submitted by us have been arrived at without agreement with any other Vendor of this RFP for the purpose of restricting competition.
- The Price bid submitted by us have not been disclosed and will not be disclosed to any other Vendor responding to this RFP.
- We have not induced or attempted to induce any other Vendor to submit or not to submit a bid for restricting competition.

3. If our offer is accepted, we undertake to complete the formalities for supply, installation, testing and commissioning of the equipment within a period **of 15 days** from date of Work Order.

4. We agree to abide by the Bid and the rates quoted therein for the orders awarded by the Bank up to the period prescribed in the Bid, which shall remain binding upon us.

5. Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

6. We undertake that, in competing for (and, if the award is made to us, in executing) the

above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

7. We also certify that the information /data/particulars furnished in our bids are factually correct. We also accept that in event of any information/ data/ particulars proven to be incorrect the Bank will have the right to disqualify us from the bid and in event of any details submitted turned out to be false during the tenure of AMC the Bank is at discretion to forfeit the EMD/ Security money deposit towards performance security and terminate the AMC.

8. We understand that you are not bound to accept the lowest or any Bid you may receive and you may reject all or any bid without assigning any reason or giving any explanation whatsoever

Dated this day of 2020

(Signature)

(Name)

(In the capacity of)

Duly authorised to sign Bid for and on behalf of

SERVICE LEVEL CONTRACT FOR NEW SUPPLY AND ANNUAL MAINTENANCE OF SECURITY EQUIPMENT HARDWARE, SOFTWARE & OTHER RELATED SERVICES

MADE THIS _____ the DAY OF _____ 2020 BY AND BETWEEN

STATE BANK OF INDIA, constituted under the SBI Act 1955 and having its Local Head Office at Ahmedabad (hereinafter referred to as 'The Bank' which expression shall include its successor and assigns)

AND

M/s _____ having its Head Office at _____ (hereinafter referred to as VENDOR which expression shall include its successors and assigns)

WHEREAS the Bank has installed **CCTV Systems** (Hereinafter referred as EQUIPMENT) for its operations and VENDOR agrees to provide and enquired services as defined herein.

Now it is agreed as follows:

During Service Level Contract, VENDOR shall agree to provide new equipment and also provide service support to the EQUIPMENT under AMC.

Duration of the Contract

The Contract duration will be of **03 years** i.e from _____ to _____

(**Terms and Condition at Para 29 will be part of the contract**)

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED THIS AGREEMENT ON THE ABOVE MENTIONED DATE.

Seal of VENDOR affixed in presence of

Shri _____
(VENDOR's authorized representative)
and signed by the duly authorized representative,

Shri _____ Designation _____.

_____.
In the presence of

(1) Shri _____

(2) Shri _____

In terms of Board/partnership resolution dated _____

The Bank by its representative

Shri _____
State Bank of India,

Date: 00.00.2020

Note: Depending upon the constitution of the Vendor, necessary changes will be made to properly state such constitution.

CLOSE CIRCUIT TELEVISION SYSTEM

Brand name: LG, Bosch, Siemens, Honeywell, Pelco, or equivalent

Components of CCTV System

S.No	Item
(a)	DVR/NVR
	i) HD DVR (pentabird) 4CH/8CH/16CH
	ii) NVR 4CH/8CH /16 CH/32 CH/64 CH
	iii) ATM DVR With LCD Monitor
(b)	<u>Camera:</u>
	i) 2 Megapixel HD IR fixed Lens Dome Camera.
	ii) 2 Megapixel HD IR fixed Lens Bullet Camera.
	iii) 2 Megapixel HD IR IP fixed Lens Dome Camera (without memory card slot).
	iv) 2 Megapixel HD IR IP fixed Lens Bullet Camera (Without memory card slot) .
	v) 4 Megapixel HD IR fixed Lens Dome Camera
	vi) 4 Megapixel HD IR fixed Lens Bullet Camera
	vii) 5 Megapixel HD IP IR fixed Lens Dome Camera (without memory card slot)
	viii)5 Megapixel HD IP IR fixed Lens Bullet Camera (without memory card slot)
	ix) 5 Megapixel HD IP IR Varifocal Lens Dome Camera (with memory card slot)
	x) 5 Megapixel HD IP IR Varifocal Lens Bullet Camera (with memory card slot)
	xi) 5 Megapixel HD IP IR Fixed Lens 180° Panoramic view Bullet Camera (with memory card slot)
	xii) High Resolution Pin Hole Camera
	xiii) Dummy Camera
(c)	<u>Other Components:</u>
	i) Hard Disk
	ii) Monitor
	iii) RJ-6 Cable/ CAT-6
	iv) Electrical Wire
	v) PVC & Conduit
	vi) 6 U Rack
	vii) POE Switch
	viii) Switcher/splitter
	ix) Fiber patch code
	x) LIU port

HD DVR FOR 4 / 8 /16 CHANNEL (Pentabird)

S. N	Parameter	Specification	Remark
System			
i	Main Processor /	Embedded Processor	
ii	Operating System	Embedded LINUX	
Video and Audio			
i	Compatibility	Supports Analog cameras (mandatory), AHD, CVI, TVI, IP video input (minimum one out of the three other than itself)	
ii	System Resources	Pentaplex function: recording, playback, live view, backup, remote access over IP network	
iii	Recorder Control Options	Video Front panel, IR Based remote control, Keyboard (Both RS485 and IP), IP Network, USB mouse	
i	Analog / HD Camera Input	Minimum 4/8/16 Video channel; BNC interface (1.0 Vp-p, 75 Ω), supporting coaxitron connection	
√	AHD input	5 MP, 4 MP 1080p25, 1080p30, 720p25, 720p30	
√	HDCVI Input	5MP, 4MP, 1080P@25/30 fps, 720p@50/60 fps,720P@25/30 fps	
√	HDTVl input	5 MP, 4 MP, 3 MP/ 1080p30, 1080p25, 720p60, 720p50, 720p30, 720p25 5M-N@10fps,4M-N@15fps	
√	CVBS Camera	PAL/ NTSC	
i	CVBS output	1-ch, BNC (1.0 Vp-p, 75 Ω),resolution: PAL: 704 × 576, NTSC: 704 × 480	
×	VGA output	1-ch, 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz,1024 × 768/60Hz	
×	HDMI output	4CH/8CH DVR-HDMI 1-ch, 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz,1024 × 768/60Hz} 16 CH DVR-HDMI: 1-ch, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz,1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz}	
×	HDMI 2 output (16CH DVR)	HDMI 2 / VGA: 1920×1080/60Hz, 1280×1024/60Hz, 1280×720 /60Hz	
×	IP Camera Input	4CH- 4-ch (up to 8-ch) Up to 6 MP resolution 8CH-4-ch (up to 12-ch) Up to 6 MP resolution 16CH-8-ch (up to 24-ch) Up to 6 MP resolution Support H.265+/H.265/H.264+/H.264 IP cameras	
×	Analog video input	4-ch BNC interface (1.0 Vp-p, 75 Ω)/ 8-ch BNC interface (1.0 Vp-p, 75 Ω) 16-ch BNC interface (1.0 Vp-p, 75 Ω)/ supporting coaxitron connection	
×	Recorder Video Output	Minimum 1 VGA, 4K HDMI	

x	Recorder Audio Input	4CH DVR -4-ch, RCA (2.0 Vp-p, 1 K Ω) 8CH DVR -8-ch, RCA (2.0 Vp-p, 1 K Ω) 16CH DVR-16-ch, RCA (2.0 Vp-p, 1 K Ω)	
x	Recorder Audio Output	4CH-1-ch, RCA (Linear, 1 K Ω) 8CH AND 16 CH DVR-2-ch, RCA (Linear, 1 K Ω)/	
x	Recorder Bidirectional Talk	4CH- 1-ch, RCA (2.0 Vp-p, 1 K Ω) (using the first audio input)/ 8CH AND 16 CH DVR -1-ch, RCA (2.0 Vp-p, 1 K Ω) (independent)	
x	Synchronous playback	4-ch/8-ch/16-ch	
x	Remote connection	128	
Recording			
i	Video/Audio Compression	H.265 Pro+/H.265 Pro/ H.265 / H.264+/ H.264/ G.711 respectively (One Channel) or higher	
i	Recording Mode	Manual, Schedule (General, Continuous), Regular, MD(Video detection: Motion detection, Camera blank, Video loss, Tempering) Alarm, Stop Recording . Recording works according to FIFO based system.	
i	Recording resolution	5MP, 4MP,1080P, 1080N, 720P,960H, D1, CIF	
i	Encoding resolution (4 CH DVR)	When 8 MP Lite mode is not enabled: 8 MP/ 5 MP/4 MP/3 MP/ 1080p/ 720p/ WD1/4CIF/VGA/CIF When 8 MP Lite mode is enabled: 8 MP Lite/ 3MP/ 1080P/ 720P/WD 1/4CIF/VGA/CIF	
v	Encoding resolution (8 CH AND 16CH DVR)	When 1080p Lite mode is not enabled: 4 MP lite/ 3 MP/ 1080p/ 720p/VGA/WD1 /4CIF/CIF; When 1080p Lite mode is enabled:4 MP lite/3 MP/1080p lite/720p lite/VGA/WD1/4CIF/CIF	
v	Frame rate (4 CH DVR)	Main stream: When 8 MP Lite mode is not enabled: 8 MP@8 fps/5MP@12 fps/4 MP@15 fps/3 MP@18 fps 1080p/720p/WD1/4CIF/VGA/CIF@25 fps (P)/30 fps (N) 8 MP Lite/ 3MP/ 1080P/ 720P/ WD1/4CIF /VGA/CIF@15 fps Sub-stream:WD1/4CIF/CIF@25fps (P)/ 30fps (N)	
v	Frame rate (8 CH DVR)	Main stream: When 1080p Lite mode is not enabled: For 4 MP stream access: 4 MP lite@15fps; 1080p lite/ 720p/WD1/ 4CIF/ VGA/ CIF@25fps (P)/30fps (N) For 3 MP stream access: 3 MP/ 1080p/720p /VGA/WD1/ 4CIF/CIF@15fps For 1080p stream access: 1080p/720p@15fps; VGA/WD1/4CIF/CIF@25fps (P)/30fps (N) For 720p stream access: 720p/VGA/WD1/4CIF/CIF@25fps (P)/30fps (N) When 1080p Lite mode enabled: 4 MP lite/3 MP@15fps; 1080p lite/720p lite/ VGA/WD1/4CIF/CIF@25fps (P)/ 30fps (N) Sub-stream:WD1/4CIF@12fps; CIF@25fps (P)/30fps (N)	

	Frame rate (16 CH DVR)	<p>Main stream: When 1080p Lite mode not enabled:</p> <p>For 4 MP stream access: 4 MP lite@15fps; 1080p lite/720p/ WD1/4CIF/ VGA/CIF @25fps (P)/30fps (N)</p> <p>For 3 MP stream access: 3 MP/1080p/720p/WD1/4CIF/ VGA/CIF @15fps</p> <p>For 1080p stream access: 1080p/720p@15fps; WD1/4CIF/VGA/CIF@25fps (P)/30fps (N)</p> <p>For 720p stream access: 720p/WD1/4CIF/VGA/CIF@25fps (P)/30fps (N)</p> <p>When 1080p Lite mode enabled:</p> <p>For 4 MP stream access: 4 MP lite@15fps; 1080p lite/720p lite/WD1/4CIF/VGA /CIF@25fps (P)/30fps (N)</p> <p>For 3 MP stream access: 3 MP/1080p lite/720p lite/WD1/ 4CIF/VGA /CIF@15fps</p> <p>For 1080p stream access: 1080p lite/720p lite/WD1/4CIF/ VGA/CIF @25fps (P)/30fps (N)</p> <p>For 720p stream access: 720p/WD1/4CIF/VGA/CIF@25fps (P)/30fps (N)Sub-stream:WD1/4CIF@12fps; CIF@25fps (P)/30fps (N)</p>	
i	Video Encoding Bit Rate	Analog video: 32 Kbps~6144Kbps or higher Per Channel, IP video: 32~4096Kb/s or higher	
x	Video bit rate	4CH-32 Kbps to 10 Mbps/ 8CH/16CH-32 Kbps to 06 Mbps	
x	Dual stream	Support(H.265+/H.265 dual-stream video compression)	
x	Stream type	Video, Video & Audio	
x	Recording Interval	Prerecord: 1sec to 30 sec., Post-record: 10sec ~ 5 minutes	
x	Audio Compression	G.711A, G.711U, PCM or AAC	
x	Audio Sample Rate	8KHz, 16 bit Per Channel	
x	Audio Bit Rate	64Kbps Per Channel	
x	Image Resolution	CIF; 2CIF; 4CIF; HD1; D1; 1080P (1920X1080) or higher, real time recording @ 25 fps in all channels with selectable fps simultaneously.	
x	Image Quality	VBR/CBR with multiple levels	
x	Recording Priority	Manual; Alarm; Motion Detection & Regular	
Display			
i	Display Screen Mode	1,4,8,9,16,32 ALL (Window)	
ii	Camera Scheduling	Supported (Continuous/Motion/Event based)	
ii	On Screen Display	Date, Time , Camera Title, Video loss alert, motion detection alert, recording, camera lock alert, camera tampering, camera masking.	
i	Interface	1 HDMI, 2HDMI for 16CH DVR, 1 VGA, 1TV	
v	Multi-Screen Display	When IP extension mode not enabled: 1/4/8/9 When IP extension mode enabled: 1/4/8/9/16	
v	Spot Output	Supports (for 16CH DVR)	
Network			

v	Interface	4CH-1, RJ45 10M/100M self-adaptive Ethernet interface/ 8CH/16CH-1, RJ45 10M/100M/1000M self-adaptive Ethernet interface	
v	Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, Wi-Fi, 3G/4G, SNMP, UPnP, UPnPPTM, ONVIF RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, SADP, NFS, iSCSI, Alarm Server, P2P, IP Search	
i	Smart Phone compatibility	iPhone, iPad, Android	
x	Interoperability	ONVIF, CGI Conformant	
x	Duplex type	Recorder should be able to playback recorded footage without having to stop recording	
Video Detection and Alarm			
i	Trigger Events	recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips	
i	Video Detection	Motion Detection, MD Zones: 396 (22 x 18), Video Loss, Tampering and Diagnosis	
i	Smart features	Line crossing/tripwire Intrusion, Object Abandoned & Missing (for atmost 2 channel)	
i	Alarm Input	8/16 Ports	
v	Relay Output	6 ports	
v	Smart Fan	Supports	
Playback and Backup			
i	Water Marking	Supported	
i	Playback Channel	Synchronous Playback 1,4,8,16	
i	Recorded Data Search Mode	Video Time & Date, Exact search (with Date, Hour, Minute and Second accuracy), Motion Detection, Alarm	
i	Playback Options	Play, Digital zoom (any size), Pause, Rewind, Slow motion, shift to Next file, shift to Previous file, one click Previous camera, one click Next camera, Full screen mode, Replay, Backup selection, Fast forward, Shuffling	
v	Operation Over Network	Monitor, Playback, File download, Log information, System setting,	
v	Backup Mode	USB Device/ Network	
Storage			
i	Hard Drive Storage Option	For 4 CH DVR –4 SATA Ports, 8 CH DVR –8 SATA , 16 CH DVR –8 SATA	
i	eSATA	1 Port	
i	Capacity	Up to 10 TB capacity for each disk	
i	HDD	Surveillance	
Auxiliary Interface			
i	USB Interface	Front panel: 2 x USB 2.0 Rear panel: 1 x USB 3.0	
i	RS232	1 port for PC communication & keyboard	

i	RS485	RS-485 (half- duplex)/ RS-485 (full-duplex)	
i	RS422	1 Port for PTZ Control	
Electrical			
	Power Supply	AC 100~240 V, 50/60 Hz	
Environmental			
i	Operating Conditions	(-)10 C~+55 C (+14 F~+131F)	
i	Relative Humidity	10%~90% RH	
Third party Support			
Certifications			
	Certificate	UL and FCC/ CE (EMC/LVD)/ERTL/BIS	

NVR 4CH/8CH/16CH/32CH/64CH (NETWORK VIDEO RECORDER)

Sr. No.	System Parameter	Specification	Remarks
System			
i)	Main Processor	Quad-core embedded processor	
ii)	Operating System	Embedded LINUX	
Network Video Input/Output			
	Bandwidth	Incoming- 4CH- 40 Mbps/ 8CH-80 Mbps 16CH- 160 Mbps/ 32CH- 256Mbps or 200Mbps (when RAID is enabled) 64CH-320Mbps or 200Mbps (when RAID is enabled)	
		Outgoing- 4CH- 40 Mbps/ 8CH-80 Mbps 16CH- 160 Mbps/ 32CH / 64CH-256Mbps or 200Mbps (when RAID is enabled)	
	HDMI Output	4CH/8CH/16CH- 1-CH, Resolution: 3840x2160/30Hz, 1920x1080/60Hz, 32CH / 64 CH-2CH, Resolution: 3840x2160/60Hz (HDMI1 Only), 3840x2160/30Hz (HDMI1 Only), 1920x1080/60Hz, 1920x1080/50Hz, 1280x1024/60Hz,1280x720/60Hz, 1024x768/60Hz HDMI Supports Audio Output	
	VGA Output	4CH /8CH/ 16CH- 1-CH, 32CH AND 64 CH-2-CH Resolution: 1920x1080/60Hz, 1920x1080/50Hz, 1280x1024/60Hz,1280x720/60Hz, 1024x768/60Hz	
	Dual Stream	Support	
Display			
i)	Interface	1 HDMI up to 3840x2160, 1 VGA	
ii)	Resolution	HDMI: 3840x2160, 1920x1080, 1280x1024, 1280x720, 1024x768	

		VGA:1920x1080, 1280x1024, 1280x720	
iii)	Multi-screen Display	1st screen:	
		4CH:1/4	
		8CH: 1/4/8/	
		16CH: 1/4/8/9/16	
		32CH: 1/4/8/9/16/25/36	
iv)	OSD	64CH: 1/4/8/9/16/25/36	
		Camera title, Time, Video loss, Camera lock, Motion detection, Recording	
Video Detection and Alarm			
i)	Trigger Events	Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips	
ii)	Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Tampering	
iii)	Alarm input	16 Channel (Low Level Effective)	
iv)	Alarm Output	4 Channel (NO/NC Programmable)	
Playback and Backup			
i)	Sync Playback	1/4/9/16	
ii)	Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)	
iii)	Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom	
iv)	Backup Mode	USB Device/Network/Internal SATA burner/eSATA Device	
Storage			
	Internal HDD	4CH -1*SATA HDD (3.5") /8CH - 4*SATA HDD (3.5") /16CH -8*SATA HDD (3.5")/ 32 CH AND 64 CH-8*SATA HDD (3.5")	
	Capacity	Up to 10TB capacity for each HDD	
	eSATA	1 e SATA port	
	Array Type	32CH AND 64 CH -RAID0, RAID1, RAID5, RAID6, RAID10	
Auxiliary Interface			
i)	Front Cover	N/A	
ii)	USB	4CH/8CH -2*USB 2.0/ 16CH, 32CH,64CH-3 ports (2 USB 2.0, 1 USB 3.0)	
iii)	USB Interface	1*RS-485 Series Port for PTZ	
iv)	RS232	1 Port Series Port for console, for PC Communication	
v)	RS485	1 Port Series Port for PTZ Control , keyboard	
vi)	Audio Input/output	8CH/16CH/ 32CH/64CH- 1*RCA/2*RCA	
vii)	Alarm Input/output	8CH/16CH- 4-CH/1-CH 32CH/ 64 CH -16-CH/4-CH	
Audio and Video			
i)	IP Camera Input	4/8/16/32/64 Channel	
ii)	Two-way Talk	1 Channel Input, 1 Channel Output, RCA	
Recording			

i)	Compression	H.265+/H.265(HEVC)/H.264+/H.264/ MJPEG/MPEG4	
ii)	Resolution	4CH /8CH/ 16CH- 8MP/6MP/5MP/4MP/3MP/1080P/UXGA/720P/D1/ VGA/ CIF/QCIF 32CH AND 64 CH- 12MP/8MP/6MP/5MP/4MP/3MP/1080P/UXGA/ 720P/D1 /VGA /CIF/QCIF	
iii)	Record Rate	160/256/320Mbps	
iv)	Bit Rate	16kbps~20Mbps for per channel	
v)	Record Mode	Manual, Schedule(Regular(Continuous), MD, Alarm), Stop Recording works according to FIFO based system.	
vi)	Recording Type	Continuous, Motion Detection, Alarm, Smart Event, Event (Motion Detection, Alarm, Smart Event)	
vii)	Snapshot	Manual Snapshot	
viii)	Playback	Video Playback, Image Playback	
ix)	Backup	Video Backup, Image Backup	
x)	Record Interval	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec	
xi)	Synchronous Playback	4CH/8CH- 1*(30fps @8MP), 1*(30fps @6MP), 1*(30fps @5MP), 2*(30fps @4MP), 2*(30fps @3MP), 4*(30fps @1080P), 4*(30fps @720P) 16CH-2*(30fps @8MP), 2*(30fps @6MP),3*(30fps @5MP), 4*(30fps @4MP),5*(30fps @3MP), 8*(30fps @1080P),16*(30fps @720P) 32CH-4*(30fps @8MP), 5*(30fps @6MP),6*(30fps @5MP), 8*(30fps @4MP),10*(30fps@3MP), 16*(30fps@1080P), 32*(30fps@720P) 64CH-4*(30fps @8MP), 5*(30fps @6MP),6*(30fps @5MP), 8*(30fps @4MP),10*(30fps@3MP), 16*(30fps@1080P),32*(30fps@720P), 64*(30fps @D1)	
xii)	Audio Compression	G.711/AAC/G.722/G.726	
xiii)	Sample Rate	8KHz/16KHz	
xiv)	Synchronous Recording	4CH/8CH-4*5MP /16CH-16*5MP	
Network			
i)	Interface	4CH-PoE Interface 4 RJ-45 ports (10/100 Mbps) and Support standard IEEE 802.3af/at 8CH/16CH/32CH/64- 2 RJ-45 ports (10/100/1000Mbps)	
ii)	Ethernet Port	2 Ethernet Ports Joint Working or 2 Independent 1000Mbps Ethernet Ports	
iii)	Network Function	IPv4/IPv6, TCP, UDP, RTP, RTSP, RTCP, HTTP, HTTPS, DNS, DDNS, DHCP, NTP, SNTP, SMTP, SNMP, UPnP, NFS, Cloud P2P, , Iscsi, SADP	
iv)	Max. User Access	128 users	
v)	Smart Phone	I Phone, i Pad, Android	
vi)	Interoperability	ONVIF 2.0 or higher, PSIA, CGI Conformant	

General		
	Compatibility	ONVIF
	Advanced Function	4CH /8CH/ 16CH- ANR /32CH AND 64 CH- ANR ,N+1 Hot Spare
	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed
	Keyboard Control	(MS-K01)
	Power Supply	AC 100V~240V 50Hz~60Hz
	Consumption	≤35W (Without HDD)
Environmental		
i)	Operating Conditions	(-)10 C~+55 C (+14 F~+131F)
ii)	Relative Humidity	10%~90% RH
Certifications		
	Certifications	CE/FCC and UL

2 MEGAPIXEL HD IR FIXED LENS DOME CAMERA

Sr. No.	Parameters	Specifications	Remarks
i)	HD Technology	TVI/AHD/CVI/CVBS	
ii)	Image Sensor	1/2.8" progressive scan CMOS	
iii)	Effective Pixels	1920(H)×1080(V), 2MP	
iv)	Signal System	PAL/NTSC	
v)	Scanning System	Progressive	
vi)	Electronic Shutter Speed	PAL 1/4 s to 1/100,000s NTSC: 1/3s to 1/100,000s	
vii)	Slow Shutter	Max. 16 times	
viii)	Minimum Illumination	0.001Lux/F1.0, 30IRE, 0Lux IR on	
ix)	S/N Ratio	More than 65dB	
x)	IR Distance/Range	Up to 20m	
xi)	IR On/Off Control	Auto / Manual	
xii)	PIR Range	Angle:110°, Range: 11m	
xiii)	IR LEDs	12 or Smart IR	
xiv)	Display Resolution	1080P or higher @ 25 fps	
xv)	Recording Resolution	1080P or higher @ 25 fps	
xvi)	Frame Rate	PAL: 1080@25fps NTSC:1080@30fps	
xvi)	Audio Input	In case of requirement, the system should have option to attach audio chip at later stage.	
xvi)	Sync System	Internal	
xix)	Visual Alarm	Yes	
xx)	Communication	Up the coax,	
Lens			
i)	Lens type	Fixed lens / Fixed iris	
ii)	Mount Type	Board-in	
iii)	Focal length	3.6mm (2.8mm, 6mm Optional)	
iv)	Aperture	F1.0	
v)	Angle of View	H: 87° (110.5°/52.9°)	
vi)	Horizontal Field of View	103.5° (2.8mm), 82.6° (3.6mm)	

vii)	Close Focus Distance	1200mm (500mm, 1800mm) 47.24" (19.69", 70.87")	
viii)	Shutter	Automatic	
ix)	Pan/Tilt/Rotation	Pan: 0° ~ 360° Tilt: 0° ~ 75° Rotation: 0° ~ 360°	
Video			
i)	Resolution	1080P (1920x1080)	
ii)	Frame Rate	25/30fps@1080P, 25/30fps@720P	
iii)	Video Output	1080P or higher @ 25 fps	
iv)	Day/Night	Auto (ICR) / Manual	
v)	Day/ Night Mode	Auto/Color/BW (Black and White)	
vi)	OSD Menu	Multi-language	
vii)	BLC Mode	BLC / HLC / WDR	
viii)	WDR	120 db WDR (DWDR not acceptable)	
ix)	Gain Control	AGC	
x)	Backlight Compensation	WDR/BLC/OFF	
xi)	Noise Reduction	3D DNR(Level 1 to 10)	
xii)	White Balance	Auto / Manual	
xiii)	Smart IR	Auto / Manual	
xiv)	Privacy Mask	ON/OFF,4 programmable privacy masks	
xv)	Motion Detection	4 programmable motion area	
xvi)	Functions	Brightness, Sharpness, Mirror, Smart IR	
Electrical			
i)	Power Supply	DC12V±10%	
ii)	Power Consumption	Max 4.5 W	
Environmental			
	Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH (non-condensation)	
ii)	Ingress Protection & Vandal Resistance	IP67 (weather proof/ dust proof) & IK10	
Certifications			
	Certifications	CE, FCC, BIS & UL	

2 MEGAPIXEL HD IR FIXED LENS BULLET CAMERA

Sr. No.	Parameters	Specifications	Remarks
i)	HD Technology	TVI/AHD/CVI/CVBS	
ii)	Image Sensor	1/2.8" progressive scan CMOS/	
ii)	Effective Pixels	1920(H)x1080(V), 2MP	
iv)	Signal System	PAL/NTSC	
v)	Scanning System	Progressive	
v)	Electronic Shutter Speed	PAL: 1/4s~1/100000s NTSC: 1/3s~1/100,000s	
v)	Minimum Illumination	Color: 0.001 Lux @ (F1.2, AGC ON), 0.028Lux @(F2.0, AGC ON); B/W: 0.001 Lux @(F1.2, AGC ON), 0.0028 Lux @(F2.0, AGC ON)	
v)	S/N Ratio	More than 65dB	
ix)	IR Distance	40m	
x)	Wave length	850nm	
x)	IR On/Off Control	Auto / Manual	

x	IR LEDs	18 or smart IR	
x	Display Resolution	1080P or higher @ 25 fps	
x	Recording Resolution	1080P or higher @ 25 fps	
x	Frame Rate	50Hz:1080p or higher @25fps	
x	Audio Input	In case of requirement, the system should have option to attach audio chip at later stage.	
x	Sync System	Internal	
Lens			
i)	Lens type	Fixed lens / Fixed iris	
ii	Mount Type	M12	
ii	Focal length	3.6mm (2.8mm, 6mm Optional)	
iv	Aperture	F1.6	
v	Angle of View	H: 87° (110.5°/52.9°)	
v	FOV	4 mm: horizontal FOV: 86°, vertical FOV: 47°, diagonal FOV: 103° 6 mm: horizontal FOV: 55°, vertical FOV: 31°, diagonal FOV: 62°	
v	Close Focus Distance	1200mm (500mm, 1800mm) 47.24" (19.69", 70.87")	
v	Shutter	Automatic/ slow shutter	
ix	Auto-Iris	No	
x	Pan/Tilt/Rotation	Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360°	
Video			
i)	Resolution	1080P (1920x1080)	
ii	Frame Rate	25/30fps@1080P, 25/30fps@720P	
ii	Video Output	1080P or higher @ 25 fps	
iv	Day/Night	Auto (ICR) / Manual	
v	OSD Menu	Multi-language	
v	BLC Mode	BLC / HLC / WDR	
v	WDR	120 db WDR (DWDR not acceptable)	
v	Gain Control	AGC	
ix	Noise Reduction	3D DNR	
x	White Balance	Auto / Manual	
x	Smart IR	Auto / Manual	
Electrical			
	Power Supply	DC12V±10%	
Environmental			
i)	Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH	
ii	Ingress Protection & Vandal Resistance	IP67 (weather proof/ dust proof)	
Certifications			
	Certifications	CE, FCC, BIS & UL	

2 MEGAPIXEL HD IR IP FIXED LENS DOME CAMERA(Without memory card slot)

S. No	Technical Specification		
1	Camera	Image Sensor	1/2.8" Progressive Scan CMOS

2		Min. Illumination	Color: 0.002Lux@F1.2 B/W: 0Lux with IR on
3		WDR	140dB Super WDR
4		Lens	2.8mm @F2.0 / 3.2mm @F2.2 / 3.6mm @F2.2
5		Wavelength	850nm
6		Mount	Board-in
7		Field of View	H123°/D142°/V68°(2.8mm)
			H105°/D123°/V58°(3.2mm)
			H94°/D111°/V50°(3.6mm)
8		Shutter Time	1/100000s~1s
9		IR Distance	Up to 20m
10		Day Night	ICR Filter Auto Switch
11		Aperture	F2.0
12		S/N	>55dB
13		Digital Noise Reduction	3D DNR
14	Video	Max. Image Resolution	1920x1080
15		Primary Stream	60fps@(1920x1080)
			(Optional for R Series), 30fps@ (1920x1080, 1280x960, 1280x720, 704x576)
16		Secondary Stream	30fps@ (704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)
17		Tertiary Stream	30fps@ (1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,
18		Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG
19		Video Bit Rate	16Kbps~16Mbps (CBR/VBR Adjustable)
20		Image Setting	Brightness/Contrast/Saturation/Sharpness adjustable by client software or web browser
21	Network	Ethernet	1*RJ45 10M/100M Ethernet Port
22		Network Storage	Support built-in micro SD/micro SDHC/micro SDXC card (128G), NAS (Support NFS, SMB/CIFS)
23		Protocol	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,
24	Audio	Audio Compression	G.711/AAC/G.722/G.726
25		Audio I/O	Built-in Microphone; 1/1 (Multi-interface Version)
26	System	System Alarm I/O	1/1 (Multi-interface Version)
27		Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark
28		SIP/VoIP Support	Yes, Voice & Video-over-IP
29		Event Trigger	Motion Detection, Network Disconnection, Audio Alarm, etc.;
	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)		

30		Event Action	FTP Upload, SMTP Upload, SD Card Record, SIP Phone, HTTP Notification, etc.;
			FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)
31		Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed
32		System Compatibility	ONVIF Profile G & Q & S & T
33	General	Working Temperature	-40°C~60°C
34		Working Humidity	0~90%(Non-condensing)
35		Power Supply	PoE (802.3af); PoE (802.3af) / DC 12V±10% (Multi-interface Version)
36		Power Consumption	2.5W MAX 5W MAX (With IR on)
37		Housing	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing

2 MEGAPIXEL HD IR IP FIXED LENS BULLET CAMERA (Without memory card slot)

S.No	Technical Specification	
1	Image Sensor	1/2.8" Progressive Scan CMOS
2	Min. Illumination	Color: 0.002Lux@F1.2 B/W: 0Lux with IR on
3	WDR	140dB Super WDR
4	Lens	2.8mm @F2.0 / 3.2mm @F2.2 / 3.6mm @F2.2
5	Mount	Board-in
6	Field of View	H123°/D142°/V68°(2.8mm), H105°/D123°/V58°(3.2mm) H94°/D111°/V50°(3.6mm)
7	Shutter Time	1/100000s~1s
8	IR Distance	Up to 30m
9	Day&Night	ICR Filter Auto Switch
10	S/N	>55dB
11	Max. Image Resolution	1920x1080
13	Primary Stream	60fps@(1920x1080)(Optional for R Series), 30fps@(1920x1080, 1280x960, 1280x720, 704x576)
14	Secondary Stream	30fps@(704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)
15	Tertiary Stream	30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,
16	Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG
17	Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)
18	Image Setting	Brightness/Contrast/Saturation/Sharpness
19	Ethernet	1*RJ45 10M/100M Ethernet Port
20	Network Storage	NAS(Support NFS, SMB/CIFS)
21	Protocol	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,
22	Audio Compression	G.711/AAC/G.722/G.726
23	Audio I/O	Built-in Microphone/(Audio Input); 1/1 (Multi-interface

		Version)
24	System Alarm I/O	1/1 (Multi-interface Version)
25	Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark
26	SIP/VoIP Support	Yes, Voice & Video-over-IP
27	Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)
29	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)
31	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed
32	System Compatibility	ONVIF Profile G & Q & S & T
33	Working Temperature	-40°C~60°C
34	Working Humidity	0~90%(Non-condensing)
35	Power Supply	PoE (802.3af); PoE (802.3af) / DC 12V±10% (Multi-interface Version)
36	Power Consumption	2.5W MAX 5W MAX (With IR on)
37	Housing	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing

4 MEGAPIXEL HD IR FIXED LENS DOME CAMERA

Sr No.	Parameters	Specifications	Remarks
i	HD Technology	TVI/AHD/CVI/CVBS	
ii	Image Sensor	1/2.8" Progressive Scan CMOS	
ii	Signal System	PAL/NTSC	
i	Effective Pixels	2688(H)×1520(V), 4 MP and high	
v	Scanning System	Progressive	
v	Electronic Shutter Speed	1/3 s to 1/100, 000 s, support slow shutter	
v	Minimum Illumination	Color: 0.01@F1.2, 0 Lux with IR	
v	S/N Ratio	More than 65dB	
i	IR Distance	Up to 20 mtrs	
x	IR On/Off Control	Auto / Manual	
x	IR LEDs	12 or Smart IR	
x	Day&Night	IR cut filter with auto switch	
x	WDR (Wide Dynamic Range)	120 dB (DWDR not acceptable)	
	Lens		
i	Lens type	Fixed lens / Fixed iris	
ii	Mount Type	Board-in	
ii	Focal length	3.6mm (2.8mm, 6mm Optional)	
i	Aperture	F1.5	
v	Shutter	Automatic	
v	Angle of View	H: 79° (99.7°/48.6°)	
v	Close Focus Distance	1500mm (900mm, 1700mm) 59.06" (35.43", 66.93")	
v	Pan/Tilt/Rotation	Pan: 0° to 355°, tilt: 0° to 100°, rotation: 0° to	

		355°	
Video			
i	Resolution	4MP (2560x1440)	
ii	Frame Rate	25fps@4MP, 25/30fps@1080P, 25/30fps@720P	
ii	Video Output	1-channel BNC high definition video output & 1-channel BNC CVBS video output	
i	Display Resolution	5 MP or higher @ 20 fps, 4MP @25 fps, 1080P@25 fps	
v	Recording Resolution	5 MP or higher @ 20 fps, 4MP @25 fps, 1080P@25 fps	
v	Audio Input	In case of requirement, the system should have option to attach audio chip at later stage.	
v	Day/Night	Auto (ICR) / Manual	
v	OSD Menu	Multi-language	
i	BLC Mode	BLC / HLC / WDR	
x	Sync System	Internal	
x	Noise Reduction	3D DNR	
x	White Balance	Auto / Manual	
x	Smart IR	Auto / Manual	
Electrical			
	Power Supply	12V DC ±25%/	
Environmental			
	Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH	
	Ingress Protection & Vandal Resistance	IP67 (weather proof/ dust proof) & IK10	
Certifications			
	Certifications	CE, FCC, BIS & UL	

4 MEGAPIXEL HD IR FIXED LENS BULLET CAMERA

Sr No.	Parameters	Specifications	Remarks
i	HD Technology	TVI/AHD/CVI/CVBS	
ii	Image Sensor	1/2.8" Progressive Scan CMOS	
ii	Signal System	PAL/NTSC	
i	Effective Pixels	2688(H)x1520(V), 4 MP and high	
v	Scanning System	Progressive	
v	Electronic Shutter Speed	PAL: 1/4s~1/100,000s NTSC: 1/3s~1/100,000s	
v	Minimum Illumination	Color: 0.01@F1.2, 0 Lux with IR	
v	S/N Ratio	More than 65dB	
i	IR Distance	Up to 40 mtrs	
x	IR On/Off Control	Auto / Manual	
x	IR LEDs	12	
Lens			
i	Lens type	Fixed lens / Fixed iris	
ii	Mount Type	Board-in	
ii	Focal length	3.6mm (2.8mm, 6mm Optional)	
i	Aperture	F1.5	

√	Shutter	Automatic	
√	Angle of View	H: 79° (99.7°/48.6°)	
√	Close Focus Distance	1500mm (900mm, 1700mm) 59.06" (35.43", 66.93")	
√	Pan/Tilt/Rotation	Pan: 0° ~ 360°Tilt: 0° ~ 90°Rotation: 0° ~ 360°	
Video			
i)	Resolution	4MP (2560×1440)	
ii)	Frame Rate	25fps@4MP, 25/30fps@1080P, 25/30fps@720P	
ii)	Video Output	1-channel BNC high definition video output & 1-channel BNC CVBS video output	
i)	Display Resolution	5 MP or higher @ 20 fps, 4MP @25 fps, 1080P@25 fps	
√	Recording Resolution	5 MP or higher @ 20 fps, 4MP @25 fps, 1080P@25 fps	
√	Audio Input	In case of requirement, the system should have option to attach audio chip at later stage.	
√	Day/Night	Auto (ICR) / Manual	
√	OSD Menu	Multi-language	
i)	BLC Mode	BLC / HLC / WDR	
x)	WDR	120dB/ DWDR	
x)	Sync System	Internal	
x)	Gain Control	AGC	
x)	Noise Reduction	3D DNR	
x)	White Balance	Auto / Manual	
x)	Smart IR	Auto / Manual	
Electrical			
	Power Supply	12V DC ±25%	
Environmental			
	Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH	
	Ingress Protection	IP67 (weather proof/ dust proof)	
Certifications			
	Certifications	CE, FCC, BIS & UL	

5 MEGAPIXEL HD IP IR FIXED LENS DOME CAMERA (WITHOUT MEMORY CARD SLOT)

Sr. No	Parameters	Technical Specifications	Remark
i)	Camera		
ii)	Image Sensor	1/2.7" 5 Mega pixel Progressive Scan CMOS	
iii)	Min. Illumination	Color: 0.005Lux@F1.2 B/W: 0Lux with IR on	
iv)	Shutter Speed	1/3 s to 1/100, 000 s, support slow shutter	
v)	RAM/ROM	256 MB/ 128 MB	
vi)	Lens	2.8mm @F2.0 / 3.2mm @F2.2 / 3.6mm @F2.2	
vii)	Lens Mount	M12	
viii)	Field of View	H111°/D141°/V82°(2.8mm) H96°/D123°/V71°(3.2mm) H80°/D102°/V59°(3.6mm)	
ix)	Day & Night	IR cut filter with auto switch	
x)	DNR (Digital Noise Reduction)	3D DNR	
xi)	WDR (Wide Dynamic Range)	140 dB Super WDR(DWDR not acceptable)	

xii)	IR Range	Up to 30 mtr;	
	Compression Standard		
i)	Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG	
ii)	H.264 Type	Baseline profile/Main profile	
iii)	Video Bit Rate	16Kbps~16Mbps (CBR/VBR Adjustable)	
iv)	Audio Compression	G.711/AAC/G.722/G.726	
v)	Audio I/O	Built-in Microphone/(Audio port option); 1/1 (Multi-interface Version)	
vi)	Dual Stream	Support	
	Image		
i)	Effective Pixel	2592x1944	
ii)	Video Frame Rate	30fps@(2592x1944), 45fps@(2048x1536), 60fps@(1920x1080) (Optional for H Series), 20fps@(2592x1944), 30fps@ (2048x1536, 1920x1080, 1280x960, 1280x720, 704x576)	
	Main Stream Max. Frame Rate		
iii)	Sub-stream Max. Frame Rate	<u>30fps@ (704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)</u>	
iv)	Third Stream	30fps@ (1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,	
v)	Image Settings	Brightness, saturation, contrast, sharpness are adjustable via web browser or client software	
vi)	Day/Night Switch	ICR filter auto switch	
vii)	S/N	>55dB	
viii)	Others	Mirror, BLC (area configurable), region of interest (support 1 fixed region) White Balance & Gain Control (Auto/manual)	
	Network		
i)	Detections	Motion detection, Line Crossing/ tripwire, Intrusion, Detection	
ii)	Alarms	Video tampering, network disconnected, IP address conflicted, HDD full, HDD error	
iii)	System Alarm I/O	1/1 (Multi-interface Version)	
iv)	Protocols	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, Pepo, VLAN, 802.1x, QoS, IGMP	
v)	Standard	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI	
vi)	General Function	IP Conflict, illegal access, One-key rest, anti-flicker, heartbeat, mirror, password protection, privacy mask (4 area), watermark, IP address filter	
vii)	User/ Host	20	
viii)	Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark	
ix)	SIP/VoIP Support	Yes, Voice & Video-over-IP	
x)	Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)	
xi)	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)	
xii)	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed	
xiii)	System Compatibility	ONVIF Profile G & Q & S & T	

	Interface		
i)	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
ii)	Reset	Support	
iii)	General		
iv)	Operating Conditions	-30 °C to 60°C (-22 °F to 140°F), humidity: 95% or less (non-condensing)	
v)	Power Supply	DC12V ± 25%, PoE (802.3af)	
vi)	Power Consumption	2.5W MAX 5.5W MAX (With IR on)	
vii)	Ingress Protection	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing	
	Certification	UL and FCC or CE, BIS	

5 MEGAPIXEL HD IP IR FIXED LENS BULLET CAMERA (WITHOUT MEMORY CARD SLOT)

Sr. No	Parameters	Technical Specifications	Remark
	Camera		
i)	Image Sensor	1/2.7" 5 Mega pixel Progressive Scan CMOS Min. Illuminati	
ii)	Min. Illumination	Color: 0.005Lux@F1.2 B/W: 0Lux with IR on	
iii)	RAM/ROM	256 MB/ 128 MB	
iv)	Shutter Speed	Auto/Manual 1/3 s to 1/100, 000 s, support slow shutter	
v)	Lens	2.8mm @F2.0 / 3.2mm @F2.2 / 3.6mm @F2.2	
vi)	Lens Mount	M12	
vii)	Field of View	H111°/D141°/V82°(2.8mm), H96°/D123°/V71°(3.2mm), H80°/D102°/V59°(3.6mm)	
viii)	IR Range	Up to 40 mtr;	
ix)	Day &Night	ICR cut filter with auto switch	
x)	S/N	>55dB	
xi)	3-Axis Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotation: 0° to 360°	
xii)	DNR (Digital Noise Reduction)	3D DNR	
xiii)	WDR (Wide Dynamic Range)	120 dB Super WDR (DWDR not acceptable)	
	Compression Standard		
i)	Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG	
ii)	H.264 Type	Baseline profile/Main profile	
iii)	Video Bit Rate	16Kbps~16Mbps (CBR/VBR Adjustable)	
iv)	Dual Stream	Support	
	Image		
i)	Effective Pixel	2592x1944	
ii)	Video Frame Rate	30fps@(2592x1944), 45fps@(2048x1536), 60fps@(1920x1080) (Optional for H Series), 20fps@(2592x1944), 30fps@ (2048x1536, 1920x1080, 1280x960, 1280x720, 704x576)	
iii)	Main Stream Max. Frame Rate	30fps@ (704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)	
iv)	Sub-stream Max. Frame Rate	30fps@ (1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,	
v)	Third Stream	Brightness, saturation, contrast, sharpness are adjustable via web browser or client software	

vi)	Day/Night Switch	ICR switch/ Support auto, scheduled	
vii)	Motion Detection	Disable/Enable(4 areas, rectangle)	
Network			
i)	Detections	Motion detection, Line Crossing/ tripwire, Intrusion, Detection	
ii)	Alarms	Video tampering, network disconnected, IP address conflicted, HDD full, HDD error	
iii)	Protocols	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,	
iv)	Audio Compression	G.711/AAC/G.722/G.726	
v)	Audio I/O	Built-in Microphone/(Audio Port option); 1/1 (Multi-interface Version)	
vi)	System Alarm I/O	1/1 (Multi-interface Version)	
vii)	Standard	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI	
viii)	General Function	IP Conflict, illegal access, One-key rest, anti-flicker, heartbeat, mirror, password protection, privacy mask (4 area), watermark, IP address filter	
ix)	Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark	
x)	SIP/VoIP Support	Yes, Voice & Video-over-IP	
xi)	Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)	
xii)	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)	
xiii)	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed	
xiv)	System Compatibility	ONVIF Profile G & Q & S & T	
xv)	User/ Host	20	
Interface			
i)	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
ii)	Reset	Support	
General			
i)	Operating Conditions	-30 °C to 60°C (-22 °F to 140°F), humidity: 95% or less (non-condensing)	
ii)	Power Supply	PoE (802.3af); PoE (802.3af) / DC 12V±10% (Multi-interface Version)	
iii)	Power Consumption	2.5W MAX 5.5W MAX (With IR on)	
iv)	Ingress Protection	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing	
Certification		UL and FCC or CE, BIS	

5 MEGAPIXEL HD IP IR VARIFOCAL LENS DOME CAMERA (WITH MEMORY CARD SLOT)

Sr. No	Parameters	Technical Specifications	Remark
Camera			
i)	Image Sensor	1/2.7" 5 Mega pixel Progressive Scan CMOS	

ii)	Min. Illumination	Color:0.005Lux@F1.2 B/W: 0Lux with IR on 140dB Super WDR	
iii)	Shutter Speed	Auto/ Manual 1/3 s to 1/100, 000 s, support slow shutter	
iv)	RAM/ROM	256 MB/ 128 MB	
v)	Lens	2.8~13.5mm motorized varifocal	
vi)	IR Range	Up to 30 mtr	
vii)	Field of View	H101°~H42°/D129°~D53°/V74°~V31°	
viii)	Focus Control	Auto/Manual	
ix)	Minimum Working Distance	200~500mm (Wide-Tele)	
x)	Aperture	F1.8~F2.7	
xi)	Iris Control	Auto	
xii)	Lens Mount	Φ14	
xiii)	Day & Night	IR cut filter with auto switch	
xiv)	S/N	>55dB	
xv)	3-Axis Adjustment	Pan: 0° to 355°, tilt: 0° to 100°, rotation: 0° to 355°	
xv)	DNR (Digital Noise Reduction)	3D DNR	
xv)	WDR (Wide Dynamic Range)	120 dB Super WDR (DWDR not acceptable)	
Compression Standard			
i)	Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG	
ii)	H.264 Type	Baseline profile/Main profile	
iii)	Video Bit Rate	16Kbps~16Mbps (CBR/VBR Adjustable)	
iv)	Dual Stream	Support Main stream & sub stream	
v)	Audio port	Built-in Microphone/(Audio Port option); 1/1 (Multi-interface Version)	
vi)	Audio Compression	G.711a; G.711Mu; G.726; AAC	
vii)	Alarm ports	1/1 (Multi-interface Version)	
viii)	Bit Rate Control	CBR/VBR	
Image			
i)	Effective Pixel	2592x1944	
ii)	Main Stream Max. Frame Rate	20fps@(2592x1944), 30fps@ (2048x1536, 1920x1080, 1280x960, 1280x720	
iii)	Sub-stream Max. Frame Rate	30fps@ (704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)	
iv)	Third Stream	30fps@ (1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,	
v)	Image Settings	Brightness, saturation, contrast, sharpness are adjustable via web browser or client software	
vi)	Day/Night Switch	ICR switch Support auto, scheduled	
vii)	Motion Detection	Disable/ Enable (4 areas,rectangle)	
Network			
i)	Network Storage	Support micro SD/SDHC/SDXC card (128G/256G), local storage and NAS (NFS, SMB/CIFS), ANR, FTP	
ii)	Detections	Motion detection, Line Crossing/tripwire, Intrusion, Detection	
iii)	Alarms	Video tampering, network disconnected, IP address conflicted, HDD full, HDD error	
iv)	Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark	
v)	SIP/VoIP Support	Yes, Voice & Video-over-IP	

vi)	Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)	
vii)	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)	
viii)	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed	
ix)	System Compatibility	ONVIF Profile G & Q & S & T	
x)	Protocols	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,	
xi)	Standard	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI	
xii)	General Function	IP Conflict, illegal access, One-key rest, anti-flicker, heartbeat, mirror, password , protection, privacy mask(4 area), watermark, IP address filter	
	Interface		
i)	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
ii)	Reset	Support	
	General		
i)	Operating Conditions	-30 °C to 60°C (-22 °F to 140°F), humidity: 95% or less (non-condensing)	
ii)	Power Supply	PoE (802.3af); PoE (802.3af) / DC 12V±10% (Multi-interface Version)	
iii)	Power Consumption	3.6W MAX 6W MAX (With IR on)	
iv)	Ingress Protection	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing	
	Certification		
		UL and FCC or CE, BIS	

5 MEGAPIXEL HD IP IR VARIFOCAL LENS BULLET CAMERA (WITH MEMORY CARD SLOT)

Sr. No	Parameters	Technical Specifications	Remark
	Camera		
i)	Image Sensor	1/2.7" 5 Mega pixel Progressive Scan CMOS	
ii)	Min. Illumination	Color0.005Lux@F1.2 B/W: 0Lux with IR on 120dB Super WDR	
iii)	Shutter Speed	Auto/ Manual 1/3 s to 1/100, 000 s, support slow shutter	
iv)	RAM/ROM	256 MB/ 128 MB	
v)	Lens	2.8~13.5 mm	
vi)	IR Range	Up to 40 mtrs	
vii)	Field of View	H101°~H42°/D129°~D53°/V74°~V31°	
viii)	Focus Control	Auto/Manual	
ix)	Minimum Working Distance	200~500mm (Wide-Tele)	
x)	Aperture	F1.8~F2.7	
xi)	Iris Control	Auto	
xii)	Lens Mount	Φ14	

xiii	Day & Night	IR cut filter with auto switch	
xiv	S/N	>55dB	
xv	3-Axis Adjustment	Pan: 0° to 355°, tilt: 0° to 100°, rotation: 0° to 355°	
xv	DNR (Digital Noise Reduction)	3D DNR	
xv	WDR (Wide Dynamic Range)	120 dB Super WDR (DWDR not acceptable)	
	Compression Standard		
ix)	Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG	
x)	H.264 Type	Baseline profile/Main profile	
xi)	Video Bit Rate	16Kbps~16Mbps (CBR/VBR Adjustable)	
xii)	Dual Stream	Support Main stream & sub stream	
xiii)	Audio port	1in/1out (RCA) Built-in Microphone; 1/1 (Multi-interface Version)	
xiv)	Audio Compression	G.711a; G.711Mu; G.726; AAC	
xv)	Alarm ports	1/1 (Multi-interface Version)	
xv)	Bit Rate Control	CBR/VBR	
	Image		
i)	Effective Pixel	2592x1944	
ii)	Main Stream Max. Frame Rate	20fps@(2592x1944), 30fps@ (2048x1536, 1920x1080, 1280x960, 1280x720	
iii)	Sub-stream Max. Frame Rate	30fps@ (704x576, 640x480, 640x360, 352x288, 320x240, 320x192, 320x180)	
iv)	Third Stream	30fps@ (1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192,	
v)	Image Settings	Brightness, saturation, contrast, sharpness are adjustable via web browser or client software	
vi)	Day/Night Switch	ICR switch Support auto, scheduled	
vii)	Motion Detection	Disable/ Enable (4 areas, rectangle)	
viii)	Others	Mirror, BLC (area configurable), White Balance & Gain Control, region of interest- 4 areas (support 1 fixed region)	
	Network		
xiii)	Network Storage	Support micro SD/SDHC/SDXC card (128G/256G), local storage and NAS (NFS, SMB/CIFS), ANR, FTP	
xiv)	Detections	Motion detection, Line Crossing/tripwire, Intrusion, Detection	
xv)	Alarms	Video tampering, network disconnected, IP address conflicted, HDD full, HDD error	
xv)	Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark	
xv)	SIP/VoIP Support	Yes, Voice & Video-over-IP	
xv)	Event Trigger	Motion Detection, Network Disconnection, External Input, Audio Alarm, etc. (Multi-interface Version)	
xix)	Event Action	FTP Upload, SMTP Upload, SD Card Record, External Output, SIP Phone, HTTP Notification, etc. (Multi-interface Version)	
xx)	Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed	
xx)	System Compatibility	ONVIF Profile G & Q & S & T	
xx)	Protocols	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,	
xx)	Standard	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI	

xx)	General Function	IP Conflict, illegal access, One-key rest, anti-flicker, heartbeat, mirror, password , protection, privacy mask(4 area), watermark, IP address filter	
	Interface		
iii)	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
iv)	Reset	Support	
	General		
v)	Operating Conditions	-30 °C to 60°C (-22 ° F to 140°F), humidity: 95% or less (non-condensing)	
vi)	Power Supply	PoE (802.3af); PoE (802.3af) / DC 12V±10% (Multi-interface Version)	
vii)	Power Consumption	3.6W MAX 6W MAX (With IR on)	
viii)	Ingress Protection	Up to IP67-rated for Weather-resistant Performance; Vandal-proof IK10-rated Metal Housing	
	Certification	UL and FCC or CE, BIS	

5 MEGAPIXEL HD IP IR FIXED LENS 180° PANORAMIC VIEW BULLET CAMERA (WITH MEMORY CARD SLOT)

S.No	Technical Specifications		
1	Camera	Image Sensor	1/2.7" 5 Mega pixel Progressive Scan CMOS
2		Min. Illumination	Color: 0.005Lux@F1.2 B/W: 0Lux with IR on
3		WDR	120dB Super WDR
4		Lens	1.4mm @F2.0
5		Mount	M12
6		Field of View	H180°/V95°(180°)
7		Shutter Time	1/100000s~1s
8		IR Distance	Up to 15m
9		Day&Night	ICR Filter Auto Switch
10		S/N	>55dB
		RAM/ROM	512 MB/32 MB
11	Video	Max. Image Resolution	2592x1944 (Original)
12		Primary Stream	30fps@(2592x1944)(Original), 30fps@(2560x1440, 1920x1080, 1280x720)
13		Secondary Stream	30fps(640x480, 640x360, 320x240)
14		Tertiary Stream	30fps@(1920x1080, 1280x720, 704x576, 640x480, 640x360, 320x240, 320x192, 320x180)
15		Video Compression	H.265 +/H.265(HEVC)/H.264 +/H.264/MJPEG
16		Video Bit Rate	16Kbps~16Mbps(CBR/VBR Adjustable)
17		Image Setting	Brightness/Contrast/Saturation/Sharpness
18	Network	Ethernet	1*RJ45 10M/100M Ethernet Port
19		Network Storage	NAS(Support NFS, SMB/CIFS)
20		Protocol	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, SIP, PPPoE, VLAN, 802.1x, QoS, IGMP,ICMP, SSL
21	Audio	Audio Compression	G.711/AAC/G.722/G.726
22		Audio I/O	Built-in Microphone
23	Storage	Storage	Support microSD/SDHC/SDXC Card Local Storage, up to 256G
24		Advanced Function	Privacy Masking, BLC, HLC, 2D DNR, 3D DNR, ROI, Defog, AWB, EIS, IP Address Filtering, AGC, Anti-flicker, Corridor Mode, Deblur, Watermark,

25		SIP/VoIP Support	Yes, Voice & Video-over-IP
26		Event Trigger	Motion Detection, Network Disconnection, Audio Alarm, etc.
27		Event Action	FTP Upload, SMTP Upload, SD Card Record, SIP Phone, HTTP Notification, etc.;
28		Video Analysis	Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting, Object Left, Object Removed, Heat Map
29		System Compatibility	ONVIF Profile G & Q & S & T
30	General	Working Temperature	-40°C~60°C
31		Working Humidity	0~90%(Non-condensing)
32		Power Supply	PoE (802.3af)/ DC 12V±10%
33		Power Consumption	4.1W MAX 7.1W MAX (With IR on)
34		Housing	Vandal-proof IK10-rated Metal Housing / Up to IP67-rated for Weather-resistant Performance

HIGH RESOLUTION PIN HOLE CAMERA

Sr No	Feature	specification
1	Image Sensor	1/2.8 " 2 Mega Pixel progressive scan CMOS
2	Effective pixels	1920 (H) × 1080 (V)
3	Resolution	2MP (1920 × 1080)
4	Scanning System	Progressive
5	Min. illumination	0.02Lux/F2.4 (Clor, 1/3s, 30IRE) 0.08Lux/F2.4 (Clor, 1/30s, 30IRE) 0.02Lux/F2.4 (B/W, 1/3s, 30IRE) 0.04Lux/F2.4 (Clor, 1/30s, 30IRE)
6	S/N ratio	>65 dB
7	Compatibility	ONVIF profile S&G, CGI
8	Max Aperture	F2.4
9	Electronic shutter	Auto, 1/3s–1/100000s
10	Lens	2.8mm fixed
11	WDR	120dB WDR (Automatic)
12	BLC	On/Off (Auto) BLC/HLC/WDR
13	Mount Type	Board-in
15	Angle of View	H:104°, V:59°
16	DORI	Detect (38m), Observe (15m), Recognise(8m), Identify (4m)
17	Motion detection	Yes
18	White balance	Set/Manual/Indoor/Outdoor/ Auto
19	AGC	Auto; Manual
20	Mirror	Off/ON
21	Privacy Mask	Off/ON
23	Video output	Video output choices of CVI/TVI/ AHD / CVBS by one BNC port
24	Audio Input	One channel, RCA sound pick-up port

25	Frame rate	CVI: 1080P@25fps, 720P@25/50fps AHD:1080P@25fps, 720P@25fps TVI: 1080P@25fps, 720P@25ps CVBS: 960 x 576H
26	Power supply	DC12V ±30% DC
27	Power consumption	1.5 Watts max
28	Operating Temperature	-30°C to +60°C (-22°F to 140°F); <95% (non- condensation)
30	Certification	UL and CE/ FCC,BIS

ATM -DVR SPECIFICATION (WITH LCD SCREEN)

S.No	Parameter	m-DVR having up to 4 CCTV cameras
1	System	
i)	Main Processor	High performance embedded microprocessor
ii)	Operating System	Embedded LINUX
	Video	
i)	Video Format	(NSTC/PAL) BNC (1.0 VP-P,75
ii)	Channel	Analog/HDCVI: 4Channels + IP: 4 Channels
iii)	Standard	HDCVI- 1080P (PAL:12fps,NTSC:15fps),720P/960H/D1/HD12CIF/CIF/QCIF
		Analog-NTSC (525 Line, 60f/s), PAL(625 Line,50f/s)
		IP-5MP/1080P/720P/960H/D1/HD1/2CIF/CIF/QCIF IP Camera
iv)	Support	HDCVI/Analog/IP video input
	Audio	
i)	Input	4 channel, BNC
ii)	Output	1 channel, BNC
iii)	Bidirectional Talk	1 channel input, 1 channel Output
	Display	
i)	Interface	7-inch screen /1 HDMI/1 VGA/1 TV
ii)	Resolution	1280x1024, 1280x720, 1024x768, 800x600
iii)	Display Split	1/4/8/9
iv)	Privacy Masking	4 self-defined four sided zones for privacy masking for each camera
v)	OSD	ATM/POS information, camera title ,time, video loss, camera lock, motion detection, recording
	Recording	
i)	Video Compression	H.264 High Profile dual-stream video compression
ii)	Audio Compression	G.711A/G.711U/PCM
iii)	Record Mode	Manual, schedule(Regular (continuous), MD, Alarm) Stop
iv)	Record Interval	Package as time period: 1~120 min (default: 60 min) Package as file size: 128~2048M (default: 1024 M)
v)	Video Detection & Alarm	
vi)	Trigger Events	Recording, PTZ, Tour, Alarm, Email, FTP, Buzzer & Screen tips
vii)	Video Detection	Motion Detection, MD Zones: 396(22x18), Video Loss & Camera Blank

vii)	Alarm Input	4 channel
ix)	Relay Output	2 channel, 1 channel outputs controlled 12 V
Playback & Backup		
i)	Playback Channel	1/4
ii)	Search Mode	ATM/POS, Time/Date, Alarm, Motion Detection & Exact search (accurate to second)
iii)	Playback Functions	4Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, digital zoom (any size)
iv)	Backup Mode	USB Device/Network/Internal SATA burner
Network		
i)	Ethernet	2RJ-45 port (10/100M)
ii)	Network Functions	TCP/IP, UDP, DHCP, DNS, IP Filter, PPPOE, DDNS, FTP, Email, Alarm Server
iii)	Max User Access	20 users
iv)	Smart Phone	iPhone, iPad, Android, Windows Phone
Storage		
i)	Internal HDD	2 SATA ports, up to 10 TB each
ii)	Auxiliary Interface	
iii)	USB	2 USB 2.0
iv)	RS232	1 port, For PC communication & keyboard & ATM communication
v)	RS485	1 port , For PTZ control
General		
i)	Power Supply	DC 12V 5A
ii)	Power Consumption	25 W (without HDD)
iii)	Working Temperature	-10°C~ +60°C
iv)	Working Humidity	0% to 95% relative humidity non-condensing
v)	Certification	CE,FCC and UL, BIS,

4 Port- 10/100/1000 8 Port Switch (with 4 PoE Ports)53W

S.No	Technical Specification
i)	10/100/1000 8 Port Switch with 4 PoE Ports having POE Budget of 53W.
ii)	Gigabit connection delivers up to 2000 Mbps of dedicated, non- blocking bandwidth per port with 16Gbps total Bandwidth.
iii)	Simple, yet useful network set-up on top of plug-and-play connectivity
iv)	Flexible management via easy-to-use web browser-based management GUI or using the PC-based Utility application
v)	Web Interface with multiple language

vi)	VLAN support for traffic segmentation
vii)	Quality of Service (QoS) for traffic prioritization
viii)	Auto “denial-of-service” (DoS) prevention
ix)	Troubleshoot connection issues via cable test
x)	Loop detection and broadcast storm controls
xi)	IGMP snooping v1, v2 and v3 support for multicast optimization
xii)	Rate limiting for better bandwidth allocation
xiii)	Port mirroring for network monitoring
xiv)	Link aggregation/port trunking for bigger uplink bandwidth
xv)	Jumbo frame support Up to 9720 bytes
xvi)	MAC Address - 4K
xvii)	Buffer Size - 192KB
xviii)	VLAN - 32, Multicast Group - 128
xix)	Mean Time Between Failures (MTBF) (hrs) - 1,242,394
xx)	Energy Efficient Ethernet (IEEE 802.3az) support for maximum power savings
xxi)	Operating temperature - (0° to 40°C), Storage - (-20° to 70°C), Humidity - 95%

Unmanaged 8 POE+

S. No	Technical Specification	
1	Model Description	8-Port Gigabit Ethernet PoE/PoE+ Unmanaged Switch
2	Speed	10/100/1000Mbps Gigabit Ethernet
3	Number of POE+ Ports	8
4	PoE Budget/PSU 802.3at	60W
5	Power Supply Supported	External Input 54V 2.4A (130W) Input 54V 1.66A(90W) Input 54V 1.25A(67.5W)
6	Switch Housing	Metal
7	Form-Factor	Desktop, wall & rack mount
8	LEDs	Power, Link/Activity
9	Fan	Fanless
10	Short Cable Power Saving	No
11	Energy Efficient Ethernet Support (IEEE 802.3az)	Yes
12	Jumbo Frame Support	9,216 bytes
13	MAC Table Size	4K
14	Packet Buffer Size	192KB
15	Bandwidth	16Gbps
16	Energy Efficient Ethernet	IEEE 802.3az complaint
17	Mean Time Between Failures (MTBF)	2,752,476 hours
18	IEEE 802.1p COS	Yes

19	DSCP	Yes
20	Queue WRR Ratio	1:3:5: 7:8:10: 12:15 Weighted Fair Queue (WFQ)
21	DC Power Adapter	Input 54V 1.25A (67.5W) External
22	Max Power Consumption (Watts)	60W
23	Acoustic Noise Level @ 25° C (dBA)	0 dBA (Fanless)
24	Operating Temperature	0° to 40°C (32° to 104°F)
25	Electromagnetic compliance (A or B)	Class A
26	Dimensions (W x D x H)	9.29 x 4.02 x 1.06 in
27	Weight	0.6 kg (1.32 lb.)
28	Certifications	47 CFR FCC Part 15, Subpart, Class A ICES-003:2016 Issue 6, Class A ANSI C63.4:2014
29		55032:2012+AC:2013, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 61000-3-3:2013
30		AS/NZS CISPR 32:2015, Class A
31		VCCI-CISPR 32:2016, Class A
32		CNS 13438
33		CB. IEC 60950-1:2005(ed.2) + A1:2009 + A2:2013
34	SAFETY Certifications	UL/cull Listed; UL60950-1, 2nd Ed. 2014; CAN/CSA C22.2 No. 60950-1-07, 2nd Ed. 2014
35		EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
36		AS/NZS 60950.1:2015
37	WARRANTY AND SUPPORT	Lifetime Hardware Warranty

16 Unmanaged 16 POE+

S. No	Technical Specification	
1	Model Description	16-Port Gigabit Ethernet PoE/PoE+ Unmanaged Switch
2	Speed	10/100/1000Mbps Gigabit Ethernet
3	Number of POE+ Ports	16
4	PoE Budget/PSU 802.3at	76W
5	Power Supply Supported	External Input 54V 3.7A(200W) Input 54V 2.4A(130W) Input 54V 1.66A(90W)
6	Switch Housing	Metal
7	Form-Factor	Desktop, wall & rack mount
8	LEDs	Power, Link/Activity
9	Fan	Fan less
10	Short Cable Power Saving	Yes

11	Energy Efficient Ethernet Support (IEEE 802.3az)	Yes
12	Jumbo Frame Support	Yes
13	MAC Table Size	4K
14	Packet Buffer Size	1MB
15	Bandwidth	32Gbps
16	Energy Efficient Ethernet	IEEE 802.3az complaint
17	Mean Time Between Failures (MTBF)	2,088,514 hours
18	IEEE 802.1p COS	Yes
19	DSCP	Yes
20	Queue WRR Ratio	1:3:5: 7:8:10: 12:15 Weighted Fair Queue (WFQ)
21	DC Power Adapter	Input 54V 1.66A (90W) External
22	Max Power Consumption (Watts)	90W
23	Acoustic Noise Level @ 25° C (dBA)	0 dBA (Finless)
24	Operating Temperature	0° to 40°C (32° to 104°F)
25	Electromagnetic compliance (A or B)	Class A
26	Dimensions (W x D x H)	11.26 x 4.02 x 1.06 in
27	Weight	0.88 kg (1.94 lb.)
28	Certifications	47 CFR FCC Part 15, SubpartB, Class A ICES-003:2016 Issue 6, Class A ANSI C63.4:2014
29		55032:2012+AC:2013, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 61000-3-3:2013
30		AS/NZS CISPR 32:2015, Class A
31		VCCI-CISPR 32:2016, Class A
32		CNS 13438
33	SAFETY Certifications	CB. IEC 60950-1:2005(ed.2) + A1:2009 + A2:2013
34		UL/cUL Listed; UL60950-1, 2nd Ed. 2014; CAN/CSA C22.2 No. 60950-1-07, 2nd Ed. 2014
35		EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
36		AS/NZS 60950.1:2015
37	WARRANTY AND SUPPORT	Lifetime Hardware Warranty
38		90 Day's Free remote configuration support

24- Port (10/100/1000 24 Port (all) PoE+(384-720W) switch with 4 SFP uplink ports)

S.No	Technical Specifications	
1	Physical Specifications	24 # 10/100/1000 Base-T auto-sensing PoE+ ports
		4 dedicated 100/1000 Base-X Fiber SFP ports

		1 EPS Connector for External Power Supply
2	Performance Specification	Bandwidth: 56 Gbps non-blocking
		Mean Time Between Failures (MTBF): 247,160 hours
		Forwarding modes: Store-and-forward
		4 Priority queues
		Priority queuing: Weighted Round Robin (WRR)
		MAC Address database size: 8,000 media access control (MAC) addresses
		VLAN: 256
		1K Multicast groups
		32 Static Routes
		15 Routed VLANs
		1024 ARP Cache entries
		8K DHCP snooping bindings
		1024 DHCP static entries
		480 rules shared for MAC, IP and IPv6 ACLs
		Packet buffer: 8 MB
		Jumbo frame: 9K
		Power Consumption: 484W Max
PoE budget: 384W and up to 720W with EPS		
3	IEEE Network Protocols	IEEE 802.3 Ethernet
		IEEE 802.3i 10BASE-T
		IEEE 802.3u 100BASE-T
		IEEE 802.3ab 1000BASE-T
		IEEE 802.1Q VLAN Tagging
		IEEE 802.3x full-duplex flow control
		IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX
		IEEE 802.3ad Trunking (LACP)
		IEEE 802.1ab LLDP with ANSI/TIA-1057 (LLDP-MED)
		IEEE 802.1p Class of Service
		IEEE 802.3 af (PoE)
		IEEE 802.3 at (PoE Plus)
		IEEE 802.1D Spanning Tree (STP)
		IEEE 802.1s Multiple Spanning Tree (MSTP)
		IEEE 802.1w Rapid Spanning Tree (RSTP)
		IEEE 802.1X Radius network access control
		4
Guest VLAN		
RADIUS based VLAN assignment via .1x		
MAC-based .1x		
Network Storm Protection		
Broadcast, Unicast, Multicast Protection		

		Access Control Lists (ACLs) L2 / L3 / L4
		IP-based ACLs (IPv4 and IPv6)
		MAC-based ACL
		TCP/UDP-based ACL
		MAC lockdown
		MAC lockdown by the number of MACs
		IEEE 802.1x Radius Port Access Authentication
		Port Security
		PoE Timer
5	L2 Services	IEEE 802.1Q VLAN Tagging
		Video VLAN
		Voice VLAN
		IEEE 802.3ad - LAGs - LACP ((8 LAGS with max. of 8 members in each LAG))
		Broadcast Storm Control
		IGMP Snooping (v1, v2 and v3)
		MLD Snooping Support (v1 and v2)
		IGMP Snooping queriers
		Block unknown Multicast
6	L3 Services	Static Routing
		VLAN Routing
		DHCP Client
		DHCP Snooping
7	Network Monitoring and Discovery Services	802.1ab LLDP
		SNMP V1, V2, V3
		RMON 1,2,3,9
8	Quality of Service (QoS)	Access Lists
		L2 MAC, L3 IP and L4 Port ACLs
		Ingress rate limiting
		Egress rate limiting
		Support for IPv6 fields
		Diff Serv QoS
		IEEE 802.1p COS
		Dst MAC and IP
		IPv4 and v6 DSCP
		IPv4 and v6 TOS
		WRR (Weighted Round Robin)
		Strict Priority queue technology
		Auto-VoIP
		Auto Video
		Port Mirroring
9	Management	Password management

		Configurable Management VLAN
		Admin access control via Radius and TACACS+
		Web-based graphical user interface (GUI)
		Smart Control Center (SCC) for multiswitch management
		IPv6 management
		Dual Software (firmware) image
		Dual Configuration file
		SNTP client over UDP port 123
		SNMP v1/v2
		SNMP v3 with multiple IP addresses
		RMON 1,2,3,9
		Port Mirroring
		Many to One Port Mirroring
		Cable Test utility
		SSL/HTTPS and TLS v1.0 for web-based access
		TFTP/HTTP File transfers (uploads, downloads)
		HTTP Download (firmware)
		Syslog (RFC 3164)
10	LEDs	Per port: Speed, Link, Activity
		Per device: Power, Fan and PoE Power Status
11	Environmental Conditions	Operating Temperature: 32° to 122°F (0° to 50°C)
		Operating Humidity: 90% maximum relative humidity, non-condensing
		Storage Temperature: – 4° to 158°F (–20° to 70°C)
		Storage Humidity: 95% maximum relative humidity, non-condensing
12	Certifications	CE mark, commercial
		FCC Part 15 Class A, VCCI Class A
		Class A EN 55022 (CISPR 22) Class A
		Class A C-Tick
		EN 50082-1
		EN 55024
		CCC
		CSA certified (CSA 22.2 #950)
		UL listed (UL 1950)/cUL IEC 950/EN 60950
13	Warranty and Support	Lifetime hardware replacement warranty
		Lifetime Chat and e-mail Technical Support
		Lifetime free latest firmware support
		90 Days Free Remote configuration support.

OPTIC FIBER CABLE 6 CORE

S. No	Technical Specification	
(a)	Nominal mode field diameter	9.2 μm
(b)	Mode field diameter tolerance	±4 μm
(c)	Cladding diameter	125
(d)	Cladding diameter tolerance	±1 μm
(e)	Mode field concentricity error	< 1 μm
(f)	Cladding non-circularity	(=/ \leq) 1.0
(g)	Change of Temperature Attenuation increase, -60°C to+85°C	</= 0.05 db/km
(h)	Dry Heat Attenuation increase, 30 days at 85°C	</= 0.05 db/km
(j)	Damp Heat Attenuation increase, 30 days at 85°C/ 85%R.H.	</= 0.05 db/km
(k)	Damp Heat Attenuation increase, 30 days at 85°C/ 85%R.H.	</= 0.05 db/km
(l)	Coating Strip Force (typical)	
(m)	Min.	1.3 N
(n)	Max.	8.9 N
(o)	Stripping force after ageing in water at 70 ± 5 °C for 168 h.	
(p)	Min.	1.0 N
(q)	Max.	3.5 N
(a)	At 1310 nm	<= 0.35 dB/km
(b)	Atten. At 1383nm (OH- Peak)	<= 0.35dB/km
(c)	At 1550 nm	<= 0.25 dB/km
(d)	Cut-off wavelength λ_c :	
(e)	High limit	1330 nm
(f)	Low limit	1180 nm
(g)	Cut-off wavelength λ_{cc}	
(h)	High limit	1260 nm
(i)	Loss increase at 1550 nm for 100 turns of fiber loosely wound with a	
(j)	37.5 mm radius:	
(k)	Max.	0.1 dB
(l)	Dispersion:	
(m)	Zero dispersion wavelength	1310 nm
(n)	Tolerance of zero dispersion	
(o)	Wavelength	-10/+12 nm
(p)	Zero-dispersion slope: 1295</=λo</=1300	
(q)	Max.	≤0.092 at λo
(r)	Chromatic dispersion coefficient:	
(s)	In 1285 nm - 1330 nm interval:	
(t)	Max.	3.5ps/km • nm
(u)	In 1270 nm - 1340 nm interval	

(v)	Max.	6 ps/km • nm
(w)	At 1550 nm	
(x)	Max.	18 ps/km • nm
(a)	Max.	<=0.2 ps/km
(b)	In homogeneity of OTDR trace for any two 1000-meter fiber lengths	
(c)	Max.	0.1 dB/km
(d)	Proof test level	1%

SFP Modules - Single Mode

S. No	Technical Specification	
1	SFP Module	1000Base-SX Fiber SFP
		LC duplex connector
		50/125µm in distances up to 550m
		Multi-Mode Fiber
		ROHS Compliant
		Compliant with SFP Transceiver MSA specification
		Compliant with Specifications for IEEE 802.3z/Gigabit Ethernet
		Compliant with Industry Standard RFT Electrical Connector and Cage
		Single + 3.3V Power Supply and TTL Logic Interface
		EEPROM with Serial ID Functionality
		Laser Class 1 Product which comply with the requirements of IEC 60825-1 and IEC 60825-2

SFP Modules- Multi Mode

S.No	Technical Specification	
1	SFP Module	1000Base-LX Fiber SFP
		LC duplex connector
		1310 nm, for distances up to 10 km
		Single Mode Fiber
		ROHS Compliant
		Compliant with SFP Transceiver MSA specification
		Compliant with Specifications for IEEE 802.3z/Gigabit Ethernet
		Compliant with Industry Standard RFT Electrical Connector and Cage
		Single + 3.3V Power Supply and TTL Logic Interface
		EEPROM with Serial ID Functionality
		Laser Class 1 Product which comply with the requirements of IEC 60825-1 and IEC 60825-2

PATCH CORD FIBRE OPTIC - OS 1 SINGLEMODULES (9/125 MM) - LC/LC DUPLEX - 1 M	
Product characteristics	
Volume (dm ³)	2,948
Weight (g)	136,00
OS 1/OS 2 (UPC) single-mode optical cords	<ul style="list-style-type: none"> ▪ Optic losses max/Master: 0.25 dB. ▪ For single-mode installations 9/125 µm, type OS 1/OS 2 ▪ Yellow sheaths
LC/LC duplex cords	<ul style="list-style-type: none"> ▪ Length: 1 m
General characteristics	
cabling system LCS ³ fibre optic - patch cords	<ul style="list-style-type: none"> ▪ Fitted with ceramic ferrule connectors on each end. ▪ Individually packed and tested (report supplied) ▪ Zipcord LSZH sheath

PATCH CORD FIBRE OPTIC - OM 3 MULTIMODULES (50/125 MM) - SC/LC DUPLEX - 1 M	
Product characteristics	
Volume (dm ³)	2,948
Weight (g)	157,00
OM3 multimode fibre optic cords (50/125 µm)	<ul style="list-style-type: none"> ▪ Suitable for 10 Giga Ethernet networks ▪ Optic losses max/Master: 0.25 dB ▪ For multimode installations 50/125 µm, type OM 3 ▪ Aqua sheaths
SC/LC duplex cords	<ul style="list-style-type: none"> ▪ Length: 1 m
General characteristics	
cabling system LCS ³ fibre optic - patch cords	<ul style="list-style-type: none"> ▪ Fitted with ceramic ferrule connectors on each end ▪ Individually packed and tested (report supplied) ▪ Zipcord LSZH sheath

Fiber LIU 6 /12/24 Port- Rack Mount

S.No	Technical Specification	
(a)	6 Port Configuration Available in Standard 19"	
(b)	6/12/24 Ports Adapter Interface available without any adapter plates	
(c)	Consist of Top Cover and Bottom Panel	
(d)	Three Types of Inlet Holes	
(e)	Splice Max 24 Fibers per Splice Tray	
(f)	Dimensions (mm)	430 X 220 X 1U
(g)	Body Material	SPCC Black Powder Coating

PIGTAILS

S.No	Technical Specification	
(a)	Connector Type	SC, ST, FC, LC
(b)	Fiber Type	OS2
(c)	(9/125 Corning Clear Curve)	
(d)	Tight Buffer Material	LSZH
(e)	Tight Buffer Diameter (mm)	0.9 +/- 0.05
(f)	Jacket Color	Yellow for OS1/OS2
(g)	Jacket Material	LSZH
(h)	Minimum Bending	30 (static) Radius (mm)
(j)	Attenuation (db/km)	<= 1.5 at 1300nm, <= 3.5mm at 850nm
(k)	Short Term Tensile (n)	160
(l)	Crush Resistance (n/100mm)	500
(m)	Operation Temperature	Minus 20 ~ Plus 70 (degree)
(n)	Insertion Loss	<= 0.2 db, Max 0.3db/MTRJ: Max 0.5db
(o)	Return Loss	PC>= 45db, UPC>=50db, APC>=60db
(p)	Connector Ferrule	Ceramic, (MTRJ: PS Polyphenylene Sulphide
(q)	Apex Offset	<50µm
(r)	Fiber Height	(+/-)100nm
(s)	End Face Radius of Curvature	7mm <R<25mm(Excluding MTRJ)
(t)	Repeatability	<= 0.2db 1000 Times Mating Cycles
(u)	Working Temperature	(minus 40 Degree ~ Plus 85 Degree) (minus 40 Degree ~
(v)	Storage Temperature	Plus 85 Degree)

Power Supply

S. No	Technical Specification	
1	Specifications	Input Voltage: 150V to 240V AC, 50/60Hz
2		Output Voltage: 12V-1/5/10Amp (Max)
3	Features	BIS Approved
4		Highly Integrated SMPS Switcher I.C Design
5		Stabilized Output Low Interference
6		Surge Protection, Over Temperature Protection
7		Over Current, Over Voltage & Over Load Protection
8		High-efficiency, low energy Consumption
9		Individual output with Resettable Fuse
10		Short Circuit Auto Restart
11	Cable Compensation Switch for Voltage Boosting	Low Ripple Voltage (mV P-P): <5%
12		Attractive Grey Color ABS Cabinet.
13		Compact size, light weight Shock Proof.
14		Wall Mountable/ Desktop Type.
15	Applications	4 Channel Security Camera Power Supply
16		Power LED Monitor for individual camera channel
17		Individual Camera Drive

VIDEO ANALYTIC SOFTWARE (VMS)

S. No	Technical Specification
1	Video Management Software (VMS) connects IP camera and NVR to server. It will provide various function such as monitoring, recording, playback, investigation, alarm management, video analytics and system monitoring. This shall require the necessary hardware to perform any of the action at server or client side. VMS shall work on both the mode centralize and de-centralize mode to support centralize and local control/monitoring/recording of connected cameras and other entities
2	The VMS architecture shall support Windows OS at server/client side
3	VMS shall support MS-SQL server database for All cameras installed with all modules of Analytics
4	VMS must cover following services and client in their architecture for comigration, controlling, managing and monitoring the system
5	Management service: Shall be responsible for overall management including configuration of all entities connected to system
6	Recording service: Shall be responsible for collecting and recording video stream from NVRs and IP Cameras.
7	IVA Service: Shall be responsible for all IVA processes
8	Admin client: Admin client shall be for administrative purpose to manage and configure entire system
9	Smart client: Smart client shall be for the user/viewer to monitor cameras and system
10	Media client: Media client shall play the recorded file in native format on system as a

	media player
11	Multi-monitor: Multi-monitor shall enable to connect multiple monitor to a single server by using graphics card
12	Mobile Client: Mobile client shall enable to view cameras on Android Phones
13	VMS must support following module of IVA for current or future use, Developed by the same company
14	License Plate Recolonization: Identify, recognize, store and export the number plate details with black list and white list feature
15	Face Detection: Detect face in camera scene and record the face snapshot
16	Loitering: Prevent present in define area for more than define time period
17	Missing Object: Alerts on object moving from define area in a scene
18	Intrusion Detection: Identify any intrusion inside or outside the define region in a scene
19	Trip-Wire Detection: Identify on crossing any virtual line drawn in a camera scene from either direction
20	No Motion Detection: Identify any marked area where no motion is found for define time
21	Camera Tempering: Identify blocking of camera view
22	Parking Management: Prohibited parking, wrong way detection, unauthorize parking, improper parking detection, Vehicle Counting
23	Crowd Management: People Counting and occupancy control
	Key Features and Offerings
	VMS platform license must not be bounded with server hardware, it must be easily transferred to other server without any dependency on OEM.
	VMS and IVA must be from a same brand and on same platform
	Each platform of VMS must be scalable by adding camera licenses on its base platform for future scalability
	Scalable to 10,000 recording devices and 1,00,000
	cameras with various platform with additional licenses
	No license for recording server module in VMS which is additionally connected to system as new expansion
	Possible to connect 1,000 Simultaneous users with
	defined roles and rights with additional licenses
	Push technology for auto connect IP cameras and NVRs to VMS.
	Distributed architecture for different types of deployment for single site with IP cameras or NVR connected to VMS from same location as well as multi-location sites connected via multiple recording servers or NVRs at different location connected to VMS at central location
	Multi-stream support (up to 4) for efficient bandwidth and storage usage
	Adaptive recording (switch to 5 FPS from 25 FPS when there is no motion in scene) and camera wise recording retention (allow to define number of days for recording of each camera as per the priority, overwrites automatically after given time) feature for saving the required storage space up to 50% of the actual space required
	Multi-monitor application for simultaneous monitoring (up to 8 display) on single server using single to multi-port graphics card Simplified event-based monitoring using E-maps with multiple layers.
	Real-time notification with SMS, email, email with snapshot, audio alert, video pop-up

alert.
Database level integration with time-attendance and access control solution to control the door remotely
Health monitoring facility for all the connected devices, camera and server also graphical representation of storage
2 level data achieving for data backup to increase storage days with available storage space
2-way audio support for cameras to connect mic/speakers with the systems.
Active directory integration for user data
Report generation of all the available IVA with the system of selected event and time.
Real-time event-based clip export to secure extremely critical data.
VMS must provide API for integration with other software to get data like snapshot, video clip, bookmark, manage recording, etc. At any instance from SAMAS.
Support of all onvif 2.0 and above camera with 20+ brands available with model number to connect
Edge recording support on devices and cameras to protect loss of data.
VMS Shall Comply with any conventional storage technology like IDE, SATA, E-SATA, SCSI, RAID, NAS, SAN
VMS shall watermark each and every frame of the Video files with Watermarks to authenticate the source of the video
The system shall support port forwarding, which shall allow clients from outside of a Network Address Translation (NAT) firewall to connect to the system without using a VPN.
VMS shall provide options for export format type (AVI/JPEG), timestamp, frame rate (full/half), digital zoom export, and AVI CODEC. Video clip may be exported to desktop/CD/DVD or a specific file path. All audio associated with the video being exported shall automatically be included in the AVI export.
VMS shall support at least 3 levels of users with various privileges to access the system functionality. Each category of users shall have selectable rights to perform various operations like Camera add/delete, Recording Server add/delete, change camera settings, Configure storage, Control PTZ cameras, User management, etc.
The Vital System health status like Server failure, Camera disconnection, Storage full, etc. shall always be displayed at Health Status page in Smart Client
Free IVA on playback of videos recorded. (Intrusion, Missing Object, Trip-Wire, Camera Temper)
VMS shall generate various reports of reports such as summary report, system report, pictorial report, evidence reports, etc.

OTHER COMPONENTS OF CCTV

SN.	Item Name	Specifications
1	Hard Disk Drive (SATA II or III)	Samsung / Seagate/WD/Hitachi. Video Surveillance Series (Rated for 24/7 operation). 32~64 MB Cache, 3Mb ~ 6Mb per second data transfer rate, Spindle Speed 7200 RPM or more.
2	Capacity	4TB/ 6TB/8TB/10TB
3	MONITOR	LED with TCO 03 / surveillance or higher certification.
4	Screen size	19"/ 22" diagonal LED
5	Make	Samsung/ LG/Philips/Hikvision or equivalent
6	Video	PAL / NTSC color composite
7	Resolution (Min)(MP)	Minimum 1920*1080 Pixels @ 60~85 Hz Refresh Rate, True Colour (32 Bit) - full HD
8	Audio jack	Standard
9	Power Input	12/24 V DC
10	Viewing Angle	140 degree H., 130 degree V
11	Power consumption	NOT EXCEEDING 40 Watts
12	Cable – Video (RJ-6)	Unarmored
13	Category	Coaxial RG 59
14	Type	Unarmored
15	Capacitance	53 +/- 3 Ohms
16	DC resistance inner conductor	8.5 Ohms /KM
17	Di- electric strength	10 KVA AC Mains
18	Di electric material	Polythene (PE), 7.1mm dia
19	Insulation resistance	50 M Ohms/KM
20	Nominal Impedance	75 Ohms
21	Minimum bending radius	55 mm
22	Acceptable Quality	Make – Finolex/ Polycab / RR kabel / Havells
23	Cable- Power	Unarmored
24	Category	2 core power cable
25	Type	2 core 1 sq .mm each
25	Acceptable Quality	ISI Marked (IS-694, 1990). Make – Finolex/ Polycab / RR Kabel / Havells
26	Insulation	PVC Insulated
27	PVC Conduits for cabling	
28	Specifications	IS-9537-1983; Internal Dia 20 "+, -," 1 mm, Wall Thickness- 4.2~5 mm
29	Acceptable Quality	ISI Marked. Make – Precision/ Prince or equivalent
30	Grade	Medium
31	6 U Rack- (Wall Mount)	Dimension : 630 mm x500mm depth Power Strip: 6 Socket power supply: 1 No. Equipment Mounting Tray: 1 No Mounting screws & studs : 1 pack Transparent front door with Lock Fan tray with 2 Fans Provision for cable routing at the bottom of Rack.

	9 U Rack 600 mm x 600 mm with accessories	
S. No	Technical Specification	
1	Standard	Compatible with 19" International standards & ETSI standard
2	Features	(a) Ventilated tempered glass locking front door
3		(b) Provision for fans / 1xUPS/1 x switch/1xPDU/1xOFC Joint Box
4		(c) Side/ Vertical cable management panel with cable management accessories
5		(d) Removal brackets for installation
6		(g) Cable entry openings at top & bottom
7		(h) Adjustable mounting rails - front & back
8		(j) Provision for mounting 2 fans
9		(k) Top & bottom cable entry
10		(l) Wall mount provision
11		m) Frame structure with max loading capacity up to 60 kgs
12	Protection	Outdoor, IP 67/IK 10
13	Accessories	(a) Cable managers.
14		(b) AC power distribution box.
15	Enclosure	Should have Space for 1KVA UPS
16		with 8 Hr Backup & 8 Port Switch
17	Dimensions (Internal)	9 U height, 19 inches width
18		(a) IEC-297-2
19		(b) IP rating 07 IP 41, IP54, IP 55 or equivalent

Appendix- 6

Commercial Bid Details:

1. Price quoted shall be for a total package for a branch, which shall include the items as per the list given below including the comprehensive AMC charges per year for 03 yrs (Post warranty).
2. This rate list shall form the basis for additional requirements of the items, if any in future.

BOQ FOR THE CCTV SYSTEM

S/No.	Item Description	Remarks	Unit
01	4 channel pentabird DVR 1080P		1No
02	8 channel pentabird DVR 1080P		1No
03	16 Channel pentabird DVR 1080P		1No
04	4 Channel ATM DVR with LCD screen		1No
05	2 Megapixel HD IR fixed Lens 1080P TWDR Dome camera		1No
06	2 Megapixel HD IR fixed Lens 1080P TWDR Bullet camera		1No
07	4 Megapixel HD IR fixed Lens 1080P TWDR Dome camera		1No
08	4 Megapixel HD IR fixed Lens 1080P TWDR Bullet camera		1No
09	Pin hole camera		1No
10	Dummy camera		1No
11	Amplified DVR microphone		1No
12	HDD 4TB (Surveillance Grade)	WD Purple / Seagate Skyhawk	1No
13	HDD 6TB (Surveillance Grade)	WD Purple / Seagate Skyhawk	1No
14	HDD 8TB (Surveillance Grade)	WD Purple / Seagate Skyhawk	1No
15	HDD 10TB (Surveillance Grade)	WD Purple / Seagate Skyhawk	1No
16	IP 65 5x5 PVC Box for camera		1No
17	19" LED Colour Monitor with HDMI & VGA support		1No
18	21" LED Colour Monitor with HDMI & VGA support		1No
19	Cable Co axial (RJ-6 cable)		1 Mtr
20	2 core 1mm Cable Power		1 Mtr
21	Microphone cables 1mm		1 Mtr
22	Conduit PVC pipes ISI marked 1mm		1 Mtr
23	6 U Rack		1No
24	SMPS 12 Volt DC 10 amps		1No
25	SMPS 24 Volt DC 10 amps		1 No
26	AMC Charges per year , Post Warranty	4 Channel ATM DVR	
		Branches/offices having up to 02 DVR	
		Branches/offices having	

		up to 04 DVR	
		Branches/offices having more than 04 DVR	
27	UPS 12hrs Battery backup	Numeric/Microtech/Luminous/Sukam/V-Guard with Battery of Exide/ Amron/ Amco	01
28	Installation charges		
29	Shifting and re installation charges to alternative site		
30	Buy back old DVR 4 channel		1No
31	Buy back old DVR 8 channel		1No
32	Buy back old DVR 16 channel		1No
33	Buy back old DVR 32 channel		1No
34	Buy back old camera analog		1No
35	Buy back old camera IP		1No
36	Buy back old camera HD		1No
37	Buy back old camera IR		1No
38	Special visit for downloading video back up assistance for branch (Maximum Rs.1500/-)		
	Total Package Cost to Bank	-----	-----

Appendix- 5(a)

S/ No	Item Description	Make	Unit
1	NVR 04 channel 2 SATA		
2	NVR 08 channel 4 SATA		
3	NVR 16 channel 8 SATA		1No
4	NVR 32 channel 8 SATA		1No
5	NVR 64 channel 8 SATA		1No
6	02 Megapixel HD IP IR fixed Lens 1080 P Dome Camera TWDR (without memory card slot)		1 No
7	02 Megapixel HD IP IR fixed Lens 1080 P Bullet Camera TWDR (without memory card slot)		1 No
8	05 Megapixel HD IP IR fixed Lens 1080 P Dome Camera TWDR (without memory card slot)		1 No
9	05 Megapixel HD IP IR fixed Lens 1080 P Bullet Camera TWDR (without memory card slot)		1 No
10	05 Megapixel HD IP IR Varifocal Lens 1080 P Dome Camera TWDR (with memory card slot)		1 No
11	05 Megapixel HD IP IR Varifocal Lens 1080 P Bullet Camera TWDR (with memory card slot)		1 No
12	CAT-6 cable ISI Marked		1 Mtr
13	HDMI Cables (15 mtrs)		1 No
14	USB Cables(20 mtrs length)		1 No
15	Wireless LAN (for lift CCTV Camera)		1 No
16	Micro SD card 64 GB for IP camera (Class 10 & above)		1 No
17	Micro SD card 128 GB for IP camera (Class 10 & Above)		1 No
18	Video switcher 4 input 1Output HDMI		1 No
19	Video splitter 4output 1 input HDMI		1 No
20	Fiber Patch Code LC/LC		1 No
21	Fiber Patch Code SC/LC		1 No
22	LIU-6 Port Fiber termination Box with 2xPigtel with 2x coupler Loaded		1 No
23	LIU-6 Port Fiber termination Box with 4xPigtel with 4x coupler Loaded		1 No
24	Small form-factor pluggable transceiver		1 No
25	Fiber 4 Core Armoured Cable		1 No
26	IP 65 Outdoor 28x20x18 with inbuilt Power supply		1 No
27	Plug switch with moduler Box		1 No
28	USB to RJ 45 LAN convertor		1 No
29	POE switch 4 channel		1 No
30	8 Port POE switch + 2 port SFP		1 No
31	24 Port POE switch + 4 port SFP (192 W)		1 No
32	24 Port POE switch + 4 port SFP (384 W)		1 No
33	Video Management Soft ware (VMS)		
34	AMC Charges per year , Post Warranty	Branches/offices having up to 02 NVR	

		Branches/offices having up to 04 NVR	
		Branches/offices having more than 04 NVR	
35	Installation charges		
36	Shifting and re installation charges to alternative site		
37	Special visit for downloading video back up assistance for branch (Maximum Rs.1500/-)		
	Total Package Cost to Bank	-----	-----

SPECIMEN CERTIFICATE

INSTALLATION CERTIFICATE (IN TRIPLICATE): SECURITY EQUIPMENT

(One copy each to BM, ZSO & Along with the Bill)

It is hereby certify that _____ system has been installed at the Branch/office on _____ and the system is working satisfactorily. All the items as per Invoice No _____ Dated _____ (given hereunder) have been installed in the branch and physically verified by the Branch Manager / officer concern.

S.No	Item Name	Make	Model	Serial No	Quantity

Working and mode of the operation of the system had been explained to the following staff members':

S.No	Name	PF Number	Designation	signature

Signature:
Name of Technician;
Mobile No:
Date:

BM Certificate

This is to certify that Mr _____ of M/s _____ (Vendor name) has Installed _____ System (as above) in our Branch. The system has been installed properly and has been working satisfactorily. Necessary entry has been made in the security register

Date:
Place:

Stamp of Branch

Signature of BM (SS No)
Name of BM
PF Number
Mob No.

ANNUAL MAINTENANCE CERTIFICATE (IN TRIPLICATE): CCTV(One copy each to BM, ZSO & Along with the Bill)

Name of the Branch:

Name of branch Manager:

Landline Phone No with STD Code.:

Date of Visit:

This is to certify that CCTV installed at the branch has inspected by me. The following equipments/ items installed in the branch have been serviced and found to be in working condition / out of order.

S. No	Equipment Details	Nos	Make & Model & Serial No	Function Report
1	DVR/NVR			
	No of Channels			
2	Cameras			
	IR Dome			
	IR Bullet			
	Auto IRS			
	Any Other Type			
4	Hard Disk			Capacity
5	No of Days of recording			
6	Monitor			Size
7	Put on Motion Detection	Yes/ No		
8	Picture Quality Day	Excellent/ Good/ Satisfactory/ Poor		
9.	Picture Quality Night	Excellent/ Good/ Satisfactory/ Poor		
10.	Power Backup Arrangements	Branch UPS/ Separate UPS		
11	Status of System and final comments			

It also certified that following officers/staff of the branch have been explained the functioning of CCTV system:

S.No	Name	PF Number	Designation	signature

Signature:

Name of Technician;

Mobile No:

Date:

BM Certificate

This is to certify that Mr _____ of M/s _____ (Vendor name) has serviced the branch CCTV System in our presence. The system installed in the branch is found to be in working condition / out of order.

Date:

Place:

Stamp of Branch

Signature of BM (SS No)

Name of BM

PF Number

Mob No.