



RO/ROHT/CCTV/2022-23/01

18/05/2022

**CENTRAL BANK OF INDIA, ROHTAK REGIONAL OFFICE**

**REQUEST FOR QUOTATION (RFQ) FROM EMPANELLED VENDORS FOR BOTH SUPPLY, INSTALLATION, MAINTENANCE AND AS WELL AS ON RENTAL BASIS FOR CCTV SYSTEM AND RELATED ACCESSORIES INSTALLED AT BRANCHES AND ADMINISTRATIVE OFFICES OF CENTRAL BANK OF INDIA UNDER THE JURISDICTION OF ROHTAK REGIONAL OFFICE**

Central Bank of India invites sealed offers in Single bid system from empanelled manufacturers/ suppliers/ vendors for the supply, installation, maintenance and also on rental basis for CCTV system and its related accessories installed at Branches and Administrative Office of Central bank of India under the jurisdiction of Rohtak Regional Office.

As part of vigilance administration, the Central Vigilance Commission (CVC) has been promoting integrity, transparency, equity and competitiveness in Government / PSU transactions. It has, therefore, become imperative for PSBs, Insurance Companies and Financial Institutions also to now adopt Integrity Pact. The Integrity Pact (IP) envisages a panel of Independent External Monitors (IEMs) recommended by the Bank to be approved by CVC. After following the laid down norms, our Bank has appointed Dr Kishore Kumar Sansi, mail ID [kishorekumarsansi1@gmail.com](mailto:kishorekumarsansi1@gmail.com), as IEM. The task of IEM shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under the pact. The IEM shall not be subject to instructions by the parties and perform their functions neutrally and independently. All the parties accept that the IEMs have the right to access all the documents relating to the project / procurement, including minutes of the meetings.

**1. OBJECTIVE & REQUIREMENT**

Bank intends to select a vendor for the supply, installation, maintenance and also on rental basis for CCTV System and related accessories installed at Branches and Administrative Office of Central bank of India under the jurisdiction of Rohtak Regional Office. The supply of New CCTV System with accessories & Rental requirement at Branches will be on need basis and will be placed / made by the Rohtak Regional Office. The selected vendor will also provide AMC support. All the existing CCTV Systems and Accessories installed at Branches and Administrative Offices irrespective of their make, model and type will be maintained and serviced by the vendor. The accessories includes gadgets like monitor, cameras, Hard disc, DVR, power supply, BNC connector, cable / conduit etc. AMC contract for newly installed CCTV Systems will commence after expiry of warranty period. The same may be renewed every year with mutual consent for a maximum duration of Three (03) years on the same rate. Supplier may be asked to provide CCTV system on rental basis to some or all branches which shall be minimum for three years.

RFP can be downloaded from the Bank's website [www.centralbankofindia.co.in](http://www.centralbankofindia.co.in). However, for RFP downloaded from website the Pay Order/ Demand Draft will have to be submitted along with the Techno-Commercial Offer.

Date of commencement of issue of RFP	19/05/2022
Last date/ time for submission of RFP	30/05/2022 by 1400 Hrs
Date of opening of the bids	31/05/2022 at 1500Hrs
Earnest Money Deposit (Bid security)	Nil
Validity of RFQ	90 Days
Fee for RFP documents (non - refundable)	Rs 200/- (Rs Two Hundred only)

**Note:** - MSME Certificate holders are exempted for RFP Fee & EMD, but should enclose certified true copies of relevant certificates.

## 2. SCOPE OF WORK

The scope of work would include the following:-

- Providing the CCTV system as per the requirement of branches on rental basis.
- Maintenance of existing CCTV System and all related Accessories installed at Branches and Administrative Offices irrespective of their make, model and type
- Replacement of non-operational CCTV Systems and accessories with the new system, its installation and commissioning (old/existing alarm system is to be taken on buyback basis). Order for such replacement will be placed / made by the respective Regional office on need and case to case basis.
- Installation and commissioning of CCTV System and related accessories at new branches and also shifting of existing alarm system with accessories from Branches in case of merger / closure. Order for such new installation and shifting will be placed / made by the respective Regional Office on need and case to case basis.
- Extraction of footage as and when demanded.
- Quarterly inspection of installed system and report submission to the respective regional office.

*Interested participants may conduct an initial Survey of some of our Branches (after taking approval from the Regional Office) to assess the current state. The firm has to conduct the survey at their own cost. Bank will not pay anything in this regards.*

## 3. TERMS & CONDITIONS

- The Quotation shall be in the prescribed format only as given below and on the letter head of the party in a sealed cover super scribing **"Quotations for Supply, Installation, maintenance and as well as on rental basis for CCTV and all related accessories at Branches under Rohtak Regional Office"** and shall be submitted to the Rohtak Regional Office, on or before due date i.e. 30/05/2022 at 1400 Hrs.
- The tender shall be valid for a period of not less than 90 days after the date of opening of Tender.
- The rates shall have to be quoted only in the prescribed format mentioned in **Annexure I**.
- The supplier shall provide specify condition of after sales service in his quotation. A service level agreement shall be entered with the successful bidder.
- The Bank has got the right to accept or reject one or all the quotations without assigning any reasons.
- The Bank is not responsible for any delay in receipt of quotation sent by post/courier. The parties can submit the quotation at the above mentioned address on or before the due date and obtain the acknowledgement..
- The payment for the Rental charges / maintenance and the quarterly visit will be made by the respective regional office after submission of satisfactory and timely repairs / supply and installation of CCTV System and its accessories as per specifications with duly vetted report from concerned Branch manager. The order for any new installation will be placed / made by the Regional Office. All payments will be made through NEFT.
- No advance payment shall be made. The payment after the applicable deductions shall be made by crossed cheque/Net Banking only.
- The Company must depute their technicians to attend, any complaint with in specified time, to the concerned Branch / Administrative Office on receiving the information in writing or over the phone. The defects reported from any local Branch / Administrative Office will be attended to and repaired within 24 hours.
- The Company has to depute their technician to make four mandatory quarterly visits to all the Branches / Administrative Offices. A quarterly summery of the visit showing the type of CCTV and its accessories installed at the Branches and their working status along with the duly signed visit report by the respective Branch managers / Administrative Office-in-charges are to be submitted to the Security Department positively.

- At the time of installation / maintenance visit the Company representative will give demonstration of operation / use of the CCTV System and its accessories. The company should depute technicians who are competent and capable to maintain / repair the CCTV System and its accessories. They should also be equipped with adequate spare parts and tools to carryout repairs at the Branch / Administrative Office at the time of visit.
- **The Bank reserve the right to terminate / modify the contract partly or fully, anytime without assigning any reason whatsoever. The Bank also reserves the right to deduct / forfeit any amount as deemed fit, payable for the installation / maintenance in case the required standards / specification of repairs / maintenance and installations are not kept / maintained and time schedule as laid down is not adhered to by the Company.**
- Any new installation of CCTV and Accessories at any Branch / Administrative Office, whenever ordered, will be installed by the Company within 10 days from the receipt of confirmed order, from the Regional Office. Any delay in this will call for cancellation of order and penalty as decided by the Bank.
- All the payments for AMC, rental charges shall be paid on quarterly basis by respective regional office and repair/replacement charges will be released by the respective Branches. The copy of the invoice along with the original installation certificate duly signed by the Branch Manager has to be submitted with the Regional Office (GAD/ Security Department) for the office record.
- In case of the defects not being attended to on time, Bank reserves the right to carry out the work through any other agency / agencies and such expenditure will be recovered from the vendor in due course of time.
- No advance shall be paid. Payment shall be done on completion of work. The bill shall be paid only on completion of the work to the satisfaction of occupant and Bank.
- The storing of material shall be the vendor's responsibility at his cost.
- The vendor shall be responsible and liable for compliance of all applicable labour laws including Workmen's Compensation Act, Contract Labour, Shops & Establishment, Policy of Insurance, Fire insurance. At no time shall you claim the above from the Bank.
- The vendor shall take care that the work is carried out without causing damage to the premises, electrical cables, etc. Any damage caused shall be rectified by the vendor at his own cost.
- The vendor shall vouch for safe, bonafied conduct and fidelity of the staff employed by him. Any damages caused willfully or in negligence to the work executed by him or other agencies shall be borne by him.
- Watch and ward in respect of all materials / equipment at the site for use in work shall be the vendor's responsibility.
- The vendor has to keep the upkeep time of 99% and provide a suitable mechanism for lodging and monitoring of complaint. A escalation matrix shall form part of the SLA.
- Any other conditions stipulated at the time of the placing the Orders have to be complied with.
- In the event of any dispute the sole arbitrator will be appointed by the consent of both the parties.
- **The vendor participating in the tender process should have their operational office in Haryana state and should have been working in region for at least 03 year. A proof regarding the same must be submitted along the financial bid in separate envelope.**

#### **4. SPECIFICATIONS/ REQUIREMENT FOR THE CCTV SYSTEM**

**Detailed technical specifications are placed at Annexure-II.**

- All the vital areas of the branch i.e Entrance, Customer Lobby, Cash Counters, Strong Room, Parking Area, BM Cabin, ATM room etc has to be covered.
- The available cameras to be positioned in such a manner that blind spots in the branch are nullified.
- The recording has to be motion based and minimum 180 days recording need to be maintained in the branches providing Safe deposit lockers facility and other than that minimum 90 days recording need to be maintained.

- The DVR should be suitably positioned so that it is not easily sighted and is not tampered with. It should have CMS port for future connectivity and capability to integrate with the existing Alarm System.
- Cabling should be of ISI standard, inside conduits
- The CCTV unit should be able to operate equally well on AC and DC mode.
- The CCTV should have uninterrupted UPS power supply.

## 5. OTHER TERMS & CONDITIONS

The offer should be submitted in a sealed cover super scribing on the envelop **"Quotations for Supply, Installation, maintenance and as well as on rental basis for CCTV system and all related accessories at Branches under Rohtak Regional Office"** The price bids should be unconditional and submitted as per Annexure-I (No change is permitted in the format). The offer should be submitted to the Regional Manager, at Rohtak Regional Office, on or before due date i.e. **30/05/2022 at 1400 Hrs.** The Offer should be complete in all respects and contain all information asked for in this document.

**Note: The RFQ documents should be submitted in original, duly signed and stamped at each page. Fax/ telegram/telex will not be acceptable.**

## 6. PROCESS

*Interested participants may conduct an initial Survey of some of our Branches (after taking approval from the Regional Office) to assess the current state. Subsequently, the firms are required to submit the Offers.*

Order will be placed to the suppliers/vendors/manufacturers finally selected for supply, installation and maintenance of CCTV System and Accessories installed at Branches under Rohtak Regional Office. **The bank reserves the right of placement of order over a period of three months from the date of finalization of the vendor.**

## 7. OPENING OF OFFERS

The Offers will be opened at **1500 Hrs. on 31.05.2022**. The bidders/ their representatives may be present at the time of opening of the Offers. No separate intimation will be sent in this regard to the suppliers for deputing their representatives. The offers will be opened at the time and date stipulated above irrespective of the number of offers/ bidders or their representatives present.

8. During defect liability period (warranty period) supplier should attend to all repairs/ defects/ replacement of major/minor spare parts free of cost. In case of failure on the part of the supplier to attend to the defects within a reasonable period, the Bank on its own will get the defects rectified through another agency at the risk and cost of supplier and repairs rectified through another agency in such circumstance will not affect the liabilities of the supplier on the warranty for its remaining period nor will it affect the supplier's liabilities on the stipulated post-warranty Annual Maintenance Contracts.

Supplier shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship of all equipment, accessories, etc., covered by the offer. The supplier must warrant all equipment's, accessories, spare parts, cables, etc., against any manufacturing defects during the warranty period. **The warranty envisaged is at least One (01) year Comprehensive Warranty.** During the warranty period the supplier shall maintain the equipment and repair/replace all the defective components including cables at the installed sites. No additional charge of whatsoever nature will be paid by the Bank.

## 9. ANNUAL MAINTENANCE CONTRACT (AMC)

Should the Bank decide to do so, the supplier is expected to maintain each gadget including all accessories/components/cables supplied for **at least two (02) years after the expiry of warranty period under AMC (Non-comprehensive)**, which may be renewed for a further period of two year. However, it will be decided by the Bank on the basis of the firm's performance during the agreement period and also on the basis of the firm's approach in advance for the same. During the warranty period & AMC period, the supplier is expected to visit the concerned branches at least once in a quarter for preventive maintenance/ servicing and on call by the Bank any number of times in case of defects, if any. The

supplier shall maintain all the gadgets and repair/replace all defective minor components at no additional charge other than the AMC contract charges. The major repairs if any will be carried out with our consent telephonically to avoid delay. The AMC charges will be released in four installments by the respective Regional Office at the end of every three month period from the date of the expiry of warranty, on satisfactory performance of the each gadget and against submission of a service report.

**9. RENTAL CONTRACT:-** Should the Bank decide to install the CCTV system on rental basis as per the requirement of branches, the supplier needs to install the same within 10 days of order issued. The rental charges shall be paid on quarterly basis by the respective regional office post submission of quarterly inspection report duly signed by the concerned branch managers. All the defect/repair/replacement shall be under the purview of the supplier. The supplier should ensure quality power supply being fed to the CCTV system and any claim arising due to faulty power supply shall not be entertained. The devices should have surge protection installed to safeguard from any such failure. The Bank shall not pay any amount over and above the agreed price for rental value and supplier should provide a complete functional CCTV system to the branches. **Note: - In a branch / office where Bank's existing infrastructure is working and we propose / allot the AMC for the same but during the currency of AMC at any point of time due to wear & tear / defect and bank suggest for replacement of existing parts on rental model, in that case, if item wise rental cost of the system i.e. (partial) cross 50% of the monthly rental charges of the system (as a whole) then AMC charges will not be paid by the bank.**

## 10. PENALTY CLAUSE

The vendor shall have to resolve the issue within 01 working day of raising the service request (excluding Sundays and three National Holidays). Penalty will be charged Rs 1000/- per day of delay after 24 hours. However, if problem remains unresolved after one week, the Bank reserves the right to cancel the order / contract. **Due to faulty System, if bank suffers any loss / penalty imposed by the Regulator / Central Office, vendor shall be responsible for the same and bank has right to recover the same from the service provider.**

## 11. PAYMENTS

Payment shall be released by the concerned Branch for Capex supply and installation on completion of the installation, commissioning, successful operational checks of the system and acceptance by the Bank. Other payment such as Quarterly AMC charges and Rental charges shall be paid by the respective Regional Office on submission of report duly authenticated by the concerned branch manager. No penalty or interest etc. shall be payable by the Bank for any overdue charges. The full payment shall be made post acceptance of the system only.

## 12. SELECTION CRITERIA

The contract will be awarded to the participant whose rates will be the lowest.

## 13. INDEMNITY

The selected agency/ organization shall indemnify and hold the Bank harmless from & against any & all claims, liability, loss, demands, damages, actions, costs and charges including legal expenses & counsel fees suffered or ascertained by the Bank or any third party dues for the Acts or omission on the part of vendor in operating, maintaining, monitoring the equipment, to which the Bank may become subject to or which it may have to pay or be held liable there for reason of any injury to persons, reputation or property suffered or sustained by any agency or employee of the Bank or arising out of negligence or omission of the selected agency/ organization.

## 14. THIRD-PARTY INFRINGEMENT CLAIMS

Supplier will defend at its expense or settle any third-party claim against Customer or its Affiliates alleging that Products, Services or Deliverables provided under this Agreement infringe intellectual property rights in the country where they were sold. Supplier will pay infringement claim defense cost, Supplier-negotiated settlement amounts, and damages finally awarded by the court. Supplier has no obligation for

any claim of infringement arising from, and Customer will indemnify Supplier against any third-party claim arising from: (i) Supplier's compliance with Customer or third-party designs, specifications, instructions, or technical information; (ii) modifications made by any party other than Supplier; (iii) Customer's non-compliance with applicable Documentation (iv) Use of Products, Services or Deliverables for purposes not contemplated by this Agreement or applicable Documentation (including distribution to third parties); (v) Customer use or combination of Products, Services or Deliverables with products, software, or services that are not provided by Supplier; or (vi) a Product, Service, or Deliverable that is not at the most current release level if the most current release level is non-infringing.

## **15. LIMITATION OF LIABILITY**

The Bank shall not be liable for any special or consequential damages that results from the use of, or the inability to use the materials on the site or the performance of the products. Applicable law may not allow the limitation or exclusion of liability or incidental or consequential damages so the above limitation or exclusion may not apply to you.

## **16. FORCE MAJEURE**

- Any failure or delay by bidder or Bank in performance of its obligation, to the extent due to any failure or delay caused by fire, flood, earthquake or similar elements of nature, or acts of God, war, terrorism, riots, civil disorders, rebellions or revolutions, acts of government authorities or other events beyond the reasonable control of non-performing Party, is not a default or a ground for termination. If Force Majeure situation arises the Vendor shall promptly notify Bank in writing of such conditions and the cause thereof. Unless otherwise agreed by 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.

### **Governing Law and Disputes (Applicable in case of successful bidder only)**

- All disputes or differences whatsoever arising between the parties out of or in connection with this contract or in discharge of any obligation arising out of the Contract (whether during the progress of work or after completion of such work and whether before or after the termination of this contract, abandonment or breach of this contract), shall be settled amicably. If however, the parties are not able to solve them amicably, party (CBI or Vendor), give written notice to other party clearly setting out there in specific dispute(s) and/or difference(s) and shall be referred to a sole arbitrator mutually agreed upon, and the award made in pursuance thereof shall be binding on the parties. In the absence of consensus about the single arbitrator, the dispute may be referred to joint arbitrator; one to be nominated by each party and the said arbitrators shall nominate a presiding arbitrator, before commencing the arbitration proceedings. The arbitration shall be settled in accordance with the applicable Indian Laws. Any appeal will be subject to the exclusive jurisdiction of courts at Chandigarh.
- The Vendor shall continue work under the Contract during the arbitration proceedings unless otherwise directed by the Bank or unless the matter is such that the work cannot possibly be continued until the decision of the arbitrator is obtained. Arbitration proceeding shall be held at Chandigarh, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be in English.

**(Dheeraj Goel)**  
**Regional Head**

COMMERCIAL BIDSUPPLY, INSTALLATION ON RENTAL FOR CCTV SYSTEM WITH ACCESSORIESAT BRANCHES UNDER ROHTAK REGIONDetailed technical specifications are placed at Annexure-II.EQUIPMENT (Table-1)

<b>Sr No</b>	<b><u>Item description</u></b>	<b><u>Make &amp; Model</u></b>	<b><u>Unit</u></b>	<b><u>Qty</u></b>	<b>Rental charges per Month in Rs.</b>	<b><u>Capital cost in Rs.</u></b>
1	'8' Channel 2 SATA DVR with CMS port - CMS compatible. Synchronous play back at 1080 resolution. Compression H 265+		Nos	1		
2	'16' Channel 2 SATA DVR with CMS port - CMS compatible. Synchronous play back at 1080 resolution. Compression H 265+		Nos	1		
3	'8' Channel 2 SATA DVR as mentioned in Sr. no 1 with HDD Combo for minimum 180 days recording		Nos	1		
4	'16' Channel 2 SATA DVR as mentioned in Sr. no 2 with HDD Combo for minimum 180 days recording		Nos	1		
5	'2' TB HDD ( <b>Make &amp; Model</b> - Seagate/WD)		Nos	1		
6	'4' TB HDD ( <b>Make &amp; Model</b> - Seagate/WD)		Nos	1		
7	Varifocal HD WDR & IR dome camera 2 MP/1080p		Nos	1		
8	Varifocal HD WDR dome camera 2 MP/1080p		Nos	1		
9	Fixed 2 MP IP IR Dome Camera		Nos	1		
10	2 MP/1080p Varifocal HD IR Bullet Camera		Nos	1		
11	2 MP/1080p Fixed HD IR Bullet Camera		Nos	1		
12	High resolution pin hole camera		Nos	1		
13	LED colour monitor 19.5"/21" with HDMI port		Nos	1		
14	Cabling with RG 6 video cable and Power cable in PVC conduit.		Mtrs.	Per Mtr.		
15	Per Camera shifting & Re- installation charges ( in case of shifting / renovation at Branch)		Nos	1		
16	Power supply 12 volt 10 amp		Nos	1		

17	BNC & DC Connector		Nos	1		
18	HDMI Cable 10 mtr		Mtrs	10		
19	LED Wall mount bracket 180 degree angle		Nos	1		
20	Installation / Re-Installation and commissioning of DVR charges		Nos	1		
21	4U DVR Rack with installation		Nos	1		
22	Retrieval of CCTV footages per branch per visit.		Nos	1		
23	Buy Back of existing '8' Ch DVR		Nos	1		(Less)
<b>Total</b>						

**AMC OF EXISTING ALARM SYSTEMS(Table-2)**

<b>Sr No</b>	<b><u>Parameters</u></b>	<b><u>Rate (Rs)</u></b>
1	AMC (Per annum) including one mandatory visit in each quarter for testing/servicing of Alarm Systems and its accessories. <i>AMC rate should include one consolidate figure for each Branch.</i>	

- \* AMC charges & Taxes will not be considered while arriving at L1.
- \* Payment/Rental for cabling will be purely on actual usage.
- \* L1 rate will be arrived at taking into consideration, the rates and the total amount quoted for the Equipment estimated.

**Signature of the Service Provider**



**Annexure-II****MINIMUM TECHNICAL SPECIFICATIONS REQUIRED FOR THE SECURITY GADGET****TECHNICAL SPECIFICATION FOR 4/8/16 CHANNEL STAND ALONE TRIBRID DIGITAL VIDEO RECORDER (DVR)**

Sr. No	Parameters	Specifications			Remarks
1	Video compression	4-Channel	8-Channel	16-Channel	All has to be Min 2 MP HD DVR's
		H.265+ High Quality Decoding			Must be Min 2 MP HD DVR's
2	Analog and HD-TVI video input	4-Channel	8-Channel	16-Channel	Min required Resolution 1080 x 720
		BNC interface (1.0Vp-p, 75 $\Omega$ )			Full Copper Wired BNC
3	Supported camera types	AHD, TVI, Existing Analog Camera, IP, 720P/25, 720P/30, 720P/50, 720P/60, 1080P/25, 1080P/30, CVBS cameras,			
4	IP video input	1-Channel (total up-to 5 Channel)	2-Channel (total up-to 10 Channel)	2-Channel (total up-to 18 Channel)	
		Min 2 MP resolution			
5	Audio compression	G.711u			
6	Audio input / Two-way audio in	4-Channel	8- Channel	16 -Channel	
		(2.0 Vp-p, 1 K $\Omega$ ), Min 1-Max 4 Audio inputs			
7	HDMI / VGA output	1920 $\times$ 1080 / 60 Hz, 1280 $\times$ 1024 / 60 Hz, 1280 $\times$ 720 / 60 Hz, 1024 $\times$ 768 / 60 Hz			
8	Encoding resolution	Main stream: 1080P(non-real-time) / 720P / VGA / WD1 / 4CIF / CIF			
		Sub-stream: WD1 / 4CIF(real-time) / CIF / QCIF / QVGA			
9	Frame rate	Main stream: 1/16 fps ~ Real time frame rate			
		Sub-stream: 1/16 fps ~ Real time frame rate			
10	Video bitrate	32 Kbps to 6 Mbps			
11	Audio output	1-ch, RCA (Linear, 1K $\Omega$ )			
12	Audio bitrate	64 Kbps			
13	Dual-stream	Support			
14	Stream type	Video, Video & Audio			
15	Synchronous Playback Resolution	4-Channel	8- Channel	16 -Channel	
		1080P / 720P / WD1 / 4CIF / CIF / QCIF / MPEG4			

16	Network protocols	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SMTP, SNMP, NFS, iSCSI, UPnP™, HTTPS			EZVIZ Cloud P2P - If available, is to be disabled
17	SATA	Min 2 SATA interface (Each SATA to support upto 4 TB) for 4 Channel Min 2 SATA interface (Each SATA to support upto 4 TB) for 8 & 16 Channel			
18	Capacity	4-Channel	8- Channel	16 -Channel	
		2 TB HDD	4 TB HDD	8 TB HDD	
19	E SATA	2 PORT			
20	Network	4-Channel	8- Channel	16 -Channel	
	interface	1; 10M / 100M self-adaptive Ethernet interface		1; 10M / 100M / 1000M self-adaptive Ethernet interface	
21	Serial interface	1; standard RS-2085 serial interface, Half duplex/ Full duplex			
22	USB port	2 × USB 2.0 Ports			
23	Alarm in / out	4 INPUT / 1 OUTPUT		4 INPUT / 2 OUTPUT	
24	Power supply	12V DC			
25	Consumption (without hard disks)	≤ 15W	≤ 20W	≤ 30W	
26	Working temperature	-10 °C ~+55 °C (14 °F ~ 131 °F)			
27	Working humidity	10% ~ 90%			
28	Chassis	1U chassis		1U/2U chassis	
29	Certifications	UL,CE,FCC			
30	Recording Resolution	1080p/ 720p/ VGA/ WD1/ 4CIF/ CIF/ QVGA/ QCIF			
31	Record Rate- Main Stream	1080p/ 720p/ VGA/ WD1/ 4CIF/ CIF/ QVGA/ QCIF (1/16 fps to Real-time frame rate)			
32	Record Rate- Extra Stream	WD1/ 4CIF/ CIF/ QCIF/ QVGA (1/16 fps to Real-time frame rate)			
33	Record Mode	Manual/ Schedule/ Motion detection			
34	Privacy Masking	Supported			
35	OSD	Camera Title, Time, Vide Loss, Recording, Motion			

		Detection	
36	Remote	Yes, IR	
37	Accepted Make/Brand	Hikvision, Dahua	

NOTE: - The Camera facing the main entrance of the Branch or the locations where the Sun lights appear opposite to the camera must be a WDR type or equivalent camera. The purpose is to see the object or person image clearly in the monitor screen.

FIXED 2 MP IP IR DOME CAMERA			
Sr. No	Parameters	Specifications	Remarks
1	Video standards	H.265+ / MPEG4 / MJPEG	
2	Sensor	1/3 inch HD resolution CMOS/CCD	
3	Scanning	Progressive Scan system	
4	System Compatibility	ONVIF/ Hikvision	
5	Resolution	720 to 1280 (H) x 960 (V)	
6	Signal Stream	Dual Stream	
7	Lens	Min 3.6 mm - Max 12 mm	
8	Minimum Illumination	0.01 lux@F1.2 0 lux with IR	
9	IR Cut Filter	Yes	
10	Wide Dynamic Range	Yes	
11	Digital noise reduction	3D DNR (if Audio enabled Camera)	
12	Day & night	Auto ICR	
13	AGC	Yes	
14	BLC/HLC	Yes	
15	Iris control	DC drive	
16	IR Range	Minimum 20 meters	
17	Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6,	
18	Ethernet	1 RJ45 10M / 100M Ethernet port	
19	Input voltage	12 VDC $\pm$ 10% or PoE, IEEE 802.3 af	
20	Operating Temp.	-10°C to +50°C	
21	Operating Humidity	Humidity 95% or less (non-condensing)	
22	Local Storage	Micro SD/SDXC card slot, up to 128 GB (High Speed HD Card)	
23	Alarm trigger	Motion detection, tampering alarm, network disconnect, IP address conflict, storage exception	
24	Security	Watermark, User authentication, IP address filtering, anonymous access.	
25	Enclosure	IEC60068 up to IK10 Impact protection	

26	Certification	UL / FCC / CE	
27	Accepted Make/Brand	Hikvision, Dahua	
<b><u>VARIFOCAL HD IR BULLET CAMERA</u></b>			
Sr. No	Parameters	Specifications	Remarks
1	Image Sensor	2 MP 1/3" CMOS Image Sensor	
2	Effective Pixels	1080 to 1280(H)*960(V)	
3	Min. Illumination	0.01 Lux @(F1.2,AGC ON), 0 Lux with IR	
4	Shutter Time	1/25(1/30) s to 1/50,000 s	
5	Lens	2.8 - 12 mm @ F1.4	
6		Angle of view: 97° - 30.4°	
7	Lens Mount	φ14	
8	Angle Adjustment	Pan: 0 - 220°, Tilt: 0 - 75°, Rotation: 0 - 220°	
9	Day & Night	Auto with ICR	
10	Synchronization	Internal synchronization	
11	Video Frame Rate	1080p@25fps/1080p@30fps	
12	HD Video Output	1 Analog HD output	
13	CVBS Output	Can Connect to any existing or HD DVR	
14	S/N Ratio	>62dB	
15	Working Temperature/Humidity	-40 °C to +60 °C(-40 F - 140 F)	
16		Humidity 90% or less (non-condensing)	
17	Power Supply	12V DC±15%	
18	WDR	120 Db	
19	Weather Proof Ratings	IP66	
20	IR Range	From 20 to 50 Meters	
21	Certifications	UL / CE / FCC	
22	Accepted Make/Brand	Hikvision, Dahua	

<b><u>FIXED HD IR BULLET CAMERA</u></b>			
Sr. No	Parameters	Specifications	Remarks
1	Image Sensor	2 MP 1/3" CMOS Image Sensor	
2	Effective Pixels	1080 to 1280(H)*960(V)	
3	Min. Illumination	0.01 Lux @(F1.2,AGC ON), 0 Lux with IR	
4	Shutter Time	1/25(1/30) s to 1/50,000 s	
5	Lens	3.6 mm (6 mm, 12 mm optional)	
6		Angle of view: 97° - 30.4°	
7	Lens Mount	φ14	
8	Angle Adjustment	Pan: 0 - 220°, Tilt: 0 - 75°, Rotation: 0 - 220°	

9	Day & Night	Auto with ICR	
10	Synchronization	Internal synchronization	
11	Video Frame Rate	1080p@25fps/1080p@30fps	
12	HD Video Output	1 Analog HD output	
13	CVBS Output	Can Connect to any existing or HD DVR	
14	S/N Ratio	>62dB	
15	Working Temperature/Humidity	-40 °C to +60 °C(-40 F - 140 F)	
		Humidity 90% or less (non-condensing)	
17	Power Supply	12V DC±15%	
18	Weather Proof Ratings	IP66	
19	IR Range	Upto 50m	
20	Certifications	UL / CE / FCC	
21	Accepted Make/Brand	Hikvision, Dahua	

#### TECHNICAL SPECIFICATIONS FOR HIGH RESOLUTION PIN HOLE CAMERA

Sr. No	Parameters	Specifications	Remarks
1	Pick-up device	1/3" SONY CCD	
2	Effective pixels	NTSC: 768*494.PAL:752*582	
3	Resolution	Color-700 TVL 720 TVL	
4	Sync system	Internal	
5	Min. illumination	Colour-0.01Lux B/W 0.001Lux	
6	S/N ratio	More than 50dB	
7	Electronic shutter	Auto, 1/50 (1/60), 1/100,000 sec	
8	Lens	3.7mm Pin Hole (2.8mm optional)	
9	D-WDR	Off/Indoor/Outdoor	
10	Mirror function	On/off	
11	BLC	On/off	
12	Motion detection	Yes	
13	Gamma	Auto/manual	
14	White balance	ATW/AWB/AWC Set/Manual/Indoor/Outdoor	
15	AGC	Off/Low/Middle/High	
16	Day & Night	Color/B/W/Auto level adjust	
17	Video output	1.00V p-p Composite Video Output, 75 Ohm	
18	Power supply	DC12V	
19	Power consumption	3 Watts max	

20	Certification	UL / CE / FCC	
21	Accepted Make/Brand	Hikvision, Dahua	

#### TECHNICAL SPECIFICATIONS FOR 21”/ 32” LED COLOUR MONITOR

Sr. No	Parameters	Specifications	Remarks
1	Screen	TFT-LED Backlight	
2	Screen Size	19.5 Inches/ 21 Inches / 32 Inches	
3	Resolution	1920 X 1080 Full HD Display	
4	Viewing Angle	170 Degree Wide	
5	Video Input Mode	HDMI, VGA, RC Signal	
6	On-Screen Display (OSD) Menu	True Colour and User Friendly operation Menu	
7	Aspect Ratio	Supports 16:9 or 4:3 aspect ratio selectable in OSD Menu	
8	Audio	Built-In Speaker and Audio Amplifier Adopt 3D Noise Reduction Technology	
9	Mount	VESA stand	
10	Certification	ISI / CE / UL / FCC Certificate or any other standard certificate in the field	
21	Accepted Make/Brand	SONY, LG, SAMSUNG, HP	