



**DIVISIONAL OFFICE-1  
LIC OF INDIA  
JAIPUR (RAJASTHAN)**

**TENDER FOR CAMC OF CCTV SYSTEM INSTALLED AT DIVISIONAL  
OFFICE, VARIOUS BRANCHES, SATELLITE AND OTHER OFFICES UNDER DO  
– 1, JAIPUR.**

**Last Date of Online Submission of tender: up to 15:00 hrs. on  
23.12.2024**

**Date of Opening of BID: 23.12.2024 at 15:30 hrs. Onward**

COST		
Tender Cost	Rs.	100.00
GST	Rs.	18.00
Total	Rs.	118.00
EMD	Rs.	3800.00

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**NAME OF WORK: TENDER FOR CAMC OF CCTV SYSTEM INSTALLED AT  
DIVISIONAL OFFICE, VARIOUS BRANCHES , SATELLITE AND OTHER OFFICES  
UNDER DO – 1, JAIPUR**

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**Re: TENDER FOR CAMC OF CCTV SYSTEM INSTALLED AT DIVISIONAL OFFICE, VARIOUS BRANCHES , SATELLITE AND OTHER OFFICES UNDER DO – 1, JAIPUR**

**Tender Notice**

**Tender is hereby invited for CAMC OF CCTV SYSTEM INSTALLED AT DIVISIONAL OFFICE, VARIOUS BRANCHES , SATELLITE AND OTHER OFFICES UNDER DO – 1, JAIPUR**

Sl.No.	Name of the work	Estimated cost	EMD
1.	CAMC OF CCTV SYSTEM INSTALLED AT DIVISIONAL OFFICE, VARIOUS BRANCH OFFICES AND SATELLITE OFFICES UNDER DO – 1, JAIPUR	<b>Rs.1,89,650/- per Annum</b>	<b>Rs.3800/-</b>

**Key Dates**

Sr. No	Department Stage	Start Date	Expiry Date and Time
1	Issuance of tenders	10.12.2024,	23.12.2024, 14:30 hrs.
2	Submission of tender along with required EMD.	10.12.2024,	23.12.2024, 15.00 Hrs.
3	Opening of Tender.	23.12.2024 at 15:30 Hrs. Onward	

**Sr. Divisional Manager**

**LIFE INSURANCE CORPORATION OF INDIA**  
**DIVISIONAL OFFICE-1 JAIPUR**  
**(Letter to Contractor)**

Date:-

To,  
M/s.....,

.....,

.....,

Re: **TENDER FOR CAMC OF CCTV SYSTEM INSTALLED AT DIVISIONAL OFFICE, VARIOUS BRANCHES, SATELLITE AND OTHER OFFICES UNDER DO – 1, JAIPUR.**

We are pleased to inform you that your agency has been selected for participation of tender for above work. You may collect the blank tender documents from the office after submitting Rs.118.00 as tender cost as per following program:-

Date of issuance of tender:	: As per key Dates
Last Date of Submission of tender:	: As per key Dates
Date of opening of tender on	: As per key Dates
EMD	: Rs.3800 /-
Form Cost	: Rs.100/-+18%GST ( Total Rs.118.00)

The contractors are requested to submit the filled-in tenders with the requisite **EMD in the form of Demand Draft from any nationalized/scheduled bank in favour of Life Insurance Corporation of India, payable at Jaipur / Cash at Divisional office- Jaipur only. No tenders will be accepted without EMD.**

LIC reserves the right to issue/cancel any or all tenders without assigning any reason whatsoever.

Yours faithfully,

Sr. Divisional Manager

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**LETTER FROM CONTRACTOR TO SR. DIVISIONAL MANAGER**

Date: .....

The Sr. Divisional Manager,  
Life Insurance Corporation of India,  
Divisional Office -1,  
Bhawani Singh Road,  
Jaipur -302005

Dear Sir,

**Re: Tender for Comprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches, Satellite and other Offices under DO -1 Jaipur.**

1. Having examined the Specifications, conditions of tender, form of Percentage rate contract, Schedule of Quantities relating to the above work of the tender and having visited and examined the site of the proposed works and having inquired the requisite information relating thereto as affecting the tender invited by you on behalf of the Life Insurance Corporation of India, I/We, the undersigned hereby offer to execute, complete and maintain the proposed works on Percentage rate basis in strict accordance with the contract conditions and specifications for the same as mentioned in the General Summary as may be ascertained in accordance with the said conditions.
2. I / We undertake to complete and deliver the whole of the work within a period as specified in Appendix to the Conditions of Contract from the date of issue of intimation from you that the tender has been accepted and upon receiving possession of the site. I/We shall be under the obligation to pay the sum of as stated in the Appendix to the Conditions of Contract for every day that the works shall remain incomplete, damages as compensation subject to the conditions of contract relating to an extension of time.
3. I/We enclose herewith my/our tender with an Earnest money remittance of **Rs.3800.00 (Rupees Three Thousand Eight Hundred only)** and tender fee in the form of CROSSED DEMAND DRAFT OF THE NATIONALISED/ SCHEDULED BANK PAYABLE AT JAIPUR /cash.  
I/We, hereby agree that part of this sum shall be forfeited by the 'Life Insurance Corporation of India in the event of my/our tender being accepted and I/We fail to execute Contract when called upon to do so.  
I/We note that earnest money remittance in form other than CROSSED DEMAND DRAFT ON AN NATIONALIZED/SCHEDULE BANKS AT JAIPUR/ **NEFT payment** shall not be accepted.
4. In the event of the tender being accepted:

The E.M.D shall be retained as part of security deposit. And rest of remaining will be submitted by us as per the "Appendix to the Conditions of Contract".

- . I / We note that the Earnest Money deposited by me/us would be refunded to me/us, without interest, On expiry of the validity of the tender or earlier at the discretion of Sr. Divisional Manager in case my/our tender is not accepted.

Yours faithfully,

SIGNATURE OF THE CONTRACTOR

Name of the Partner of the Firm

Or

Name of person having Power of Attorney to sign the contract.

(Certified True Copy of the Power of Attorney should be attached).

**LIFE INSURANCE CORPORATION OF INDIA**  
**DIVISIONAL OFFICE-JAIPUR 1.**

**Appendix to conditions of Contract**

SI No	Description	
1	Name of work :	Comprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches, Satellite and other Offices under DO -1 Jaipur.
2	Estimated Annual Amount	Rs.1,89,650/-
3	Cost of tender document	Rs. 100/-(Rupees One hundred only) +18%GST.
4	Earnest Money Deposit	Rs.3800/- (Rs. Three Thousand Eight Hundred Only).
5	Date of sale of tender document	As per Key dates on week days ( Excluding holidays ,Saturdays and Sundays ) from the above office on payment of non refundable tender cost by Demand Draft / Pay Order in favour of “ <b>Life Insurance Corporation of India</b> ” payable at Jaipur or in cash at LIC DO-1, Jaipur Cash Counter.
6	Last Date & Time of receiving / submission of tender document.	On 23.12.2024 up to 15.00 Hrs.
7	Date & Time of opening of Bids	On 23.12.2024 at 15.30 Hrs. onward
9	Contract period	03 years (Initial) may be extended further for 02 years ( year to year basis ) on mutual consent basis.
10	Security Deposit	5 % of the accepted annual CAMC amount.
11	Notice period for Termination of contract.	03 (Three) months on either side without any financial obligation.
12	Validity of tender	90 (Ninety) days from the date of opening of Bid.

**LIFE INSURANCE CORPORATION OF INDIA  
DIVISIONAL OFFICE- 1, JAIPUR  
INSTRUCTIONS TO BIDDERS**

1. The tender forms will be available AS PER KEYS DATES on week days (excluding Holidays, Saturday and Sundays ) on payment of Rs. 100/- ( Rupees One Hundred only) +18%GST ( Total Rs.118.00 ) by Demand Draft / Pay order ( Non refundable) in favour of “ Life Insurance Corporation of India” payable at Jaipur or in cash at LIC, DO-1, Jaipur Cash Counter.
2. The last date for submission of filled in tender forms, is 23.12.2024 up to 15.00 PM. The offers received after the last date and time mentioned above will not be considered.
3. The filled in tenders should be submitted to the address given below :  
**The Manager (O.S), LIC of India, Divisional Office-1, Bhawani Singh Road, Jaipur - 302001**
4. The bid will be opened by the “Tender Opening Committee” on the same day i.e. 23.12.2024 at 15.30 Hrs. onward in the presence of bidders or their authorized representatives if they are willing to attend.
5. The tender form consists of the following documents. i.e.,
  - i) Earnest Money Deposit .
  - ii) Financial Bid.

The offers are to be submitted in two envelopes. (One for Financial Bid and second envelope contains EMD)The envelope shall contain the addressee's details and details of the bidder also and super scribed with “Financial Bid” / “EMD” and name of work.
6. EMD of Rs.3800/- ( Rupees Three Thousand Eight Hundred only) in the form of Demand Draft / Pay Order in favour of “ Life Insurance Corporation of India” payable at Jaipur or by cash at LIC DO-1 Cash Counter vide the Miscellaneous Receipt shall be submitted in sealed cover ( Marked Envelope – II) super scribing as “Earnest Money Deposit” ( Tender for Comprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches , Satellite and other Offices under **DO - 1 Jaipur.**) . **Please note that no interest is payable on the EMDs.**
7. All the Two envelopes will be placed in a Third envelope (Envelope – III) and sealed and submitted to the address given above. The envelope must be super scribed with “**Tender for Comprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches, Satellite and other Offices under DO - 1 Jaipur .**
8. **Refund of EMD :-** EMD shall be refunded as under :



a. EMD of un- successful agencies shall be refunded within 30 (Thirty) days from the date of opening of Bid.

b. EMD of lowest bidder shall be refunded separately or adjusted as a part of Security Deposit.

c. In case the lowest Firm / Agency refused to carry out the CAMC after issue of acceptance letter, a notice shall be served to them by giving 15 ( Fifteen days ) days time failing which their EMD / S.D amount lying / retained with us shall be forfeited without any further correspondence.

**Sr. Divisional Manager is the competent authority to refund / forfeit the EMD amount.**

9. All the pages of the tender documents are to be signed by the authorized signatory of the tenderer. Any over writing or use of white ink is to be duly initialed by the tenderer.

The Corporation reserves the right to reject the incomplete bids and bids lacking in details and without signatures.

10. Tenderers should note that their tenders should remain open for consideration for a minimum period of 90 (Ninety) days from the date of opening of Bid.
12. Tenders received late, not in properly sealed cover, received telegraphically & Conditional or not conforming to the prescribed conditions or not complete in all respects will be rejected.
13. If any of the dates mentioned above happens to be a holiday, the transaction will be made on the next working day.
14. Issue of tender document does not mean that the Firm / Agency are considered qualified.
15. The Tender Inviting Authority reserves the right to accept any tender or to reject any or all tenders at his sole discretion without assigning reasons thereof. The tender inviting authority does not bind to accept the lowest tender.

**Sr. Divisional Manager**

**Place:**

**Date :**

**LIFE INSURANCE CORPORATION OF INDIA**  
**DIVISIONAL OFFICE-1, JAIPUR**

Sub : “ Tender for Ccomprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches ,Satellite and other Offices under DO -1 Jaipur.

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This tender consists of Financial Bid containing expected price only. Separate Financial bids and E.M.D are to be submitted. The Financial Bid and the Earnest Money Deposit (EMD) should be sealed in envelopes. The use of envelopes will be as under:

- (a) **Envelope marked as I :** The duly completed Financial Bid be put in this envelope and sealed.
- (b) **Envelope marked as II :** The DD or Bankers cheque or M.R for “ Earnest Money Deposit” of the required value be put in this envelope and sealed.
- (d) **Envelope marked as III :** All the two envelopes shall be placed in envelope marked – III and sealed ( i.e. Envelopes marked as III, will contain Two envelopes marked as I, II and submitted to LIC of India, in sealed condition super scribing as “Tender for Ccomprehensive Annual Maintenance Contract of CCTV systems installed at Divisional Office-1, various Branches ,Satellite and other Offices under DO -1 Jaipur ”

### **TERMS & CONDITIONS**

1. The tender is open only for empaneled Vendors of Jaipur 1, Jaipur 2 & Ajmer Divisions.
2. Tender should remain open for 90 days from date of opening of Financial Bid.
3. Tender shall be governed by the Terms & Conditions embodied in the Tender.
4. **The L1 vendor for CAMC will be overall responsible for round the clock working of the installed CCTV systems.**
5. Tender shall initially be for a period of three years, which will be renewed every year subject to satisfactory services rendered by the AMC vendor. After three years it can be extended for two more years, on existing terms & conditions, one year at a time, on the sole discretion of the Senior Divisional Manager, Divisional office 1, Jaipur.
6. Competent Authority may cancel, postpone or extend the dates at its sole discretion without assigning any reason thereof.
7. If the quoted Rates are found to be very high or very low (Variation of more than 25%) from Market Price, the vendor may be disqualified and debarred or blacklisted for three years, subject to final decision of the competent authority. Decision of the competent authority shall be final and binding.
8. Rates Quoted are excluding GST. GST will be paid separately along with bill payment as per applicable rates and norms at the time of Bill.
9. Comprehensive annual maintenance charges is including all jobs which includes four preventive maintenance visits in a year on quarterly basis, cleaning of lenses, checking up of backup etc. as required. The rates should be inclusive of attending any number of breakdown call and repairs of the CCTV system including replacement / repairing of all necessary accessories and spare parts, NVR / DVR/SMPS/wiring etc. as and when required during the above period.
10. The contractor shall take every precaution to prevent any damages to the building or installation and shall be responsible for any injury to workers or the public. The contractor shall make good all the damages to the building or installations at his own cost.
11. The camera / monitor / DVR-NVR may be positioned in a place best suitable for the purpose and maybe decided at DO/BO/SO level.
12. The quantity / locations may increase or decrease..
13. Income Tax, GST and other statutory deductions, if any shall be deducted from the bill amount as per prevailing government rules.
14. Contractor has to give proper authorization to his engineers / supervisors who shall be visiting office to attend complaints and be responsible for maintenance of CCTV equipment and proper records of the services rendered to the branches.
15. The contract shall remain in force for a period of 3 year effective from date of acceptance of tender. The contract can be extended for another 2 years on yearly basis on the same rate and terms if the performance is found satisfactory and as per the decision of the competent authority. L I C may terminate the contract at any time after serving 30 days' notice during contract, if the performance of contractor becomes poor.

16. Contractor has to take insurance for third party and workman compensation of adequate amount in the joint name of LIC and contractor. The policy shall remain in force till contract. Including any extension.

**Pre- AMC Survey, Supply and Repairing :**

17. Rates Quoted on the schedule F.O.R destination, inclusive of all taxes, duties, transportation, anywhere at all offices located under Jaipur division office 1 jurisdiction/divisional office INCLUDING loading, unloading, dismantling of CCTV system if any, fixing, connectors, labour charges and material cost, etc. excluding GST. Nothing extra shall be payable over and above the Quoted rates. The taxes at source shall be deducted as per rules stipulated by government Finance Act etc. Goods and service tax shall be paid separately along with bill payment as per applicable rate of GST at the time of raising bill.
18. Prior to the commencement of comprehensive annual maintenance contract of CCTV system, the contractor / firm/vender has to inspect all the systems installed in our offices and report to LIC for any defects found in CCTV system and obtain the approval from Life insurance corporation of India before repairing. Pre- AMC repairing cost against CCTV system in any offices will be borne by LIC of India. Once the CCTV system is handed over to the contractor / firm/vendor in running condition, then it is the sole responsibility of the contract or firm to keep the entire CCTV system in running condition throughout the contract. .
19. After the expiry of the CAMC, outgoing contractor shall hand over CCTV system in good working condition. Last quarterly payment of the contractor shall be released only after making the CCTV system in normal working conditions and after recovery of repair work (if any) done at the risk and cost of the original contractor. The parts and components etc. which are replaced during the contract shall be as per tendered quality and of reputed make. Old/worn-out parts will become the property of the contractor.
20. Successful contractor has to deposit Security deposit as per appendix to condition of contract within 15 days from the date of acceptance letter failing which the tender may be cancelled. Security deposit will be refunded after the successful completion of contract, without interest. Security deposit may also be deposited in the form of FD pledged in the name of LIC of India Jaipur division office -1. Alternately security deposit may be submitted as a bank guarantee from any nationalized/ scheduled Bank.
21. All Bidders who are registered under the MSME ministry's MSME / NSIC program are exempted from payment of Tender fees and Earnest Money Deposit. They are also exempted from payment of Security Deposit to the extent of Monetary Limit as defined in their NSIC certificate. Those bidders applying for Exemptions under the NSIC /MSME scheme must submit their documents for scrutiny.
22. The following makes as mentioned below are approved for supply. The contractor should confirm that the **cameras and DVR-NVR** shall be supplied from the **same OEM** for better compatibility.
- **Make of camera:** Hikvision / Dahua / Honeywell/ Godrej /CP Plus
  - **Make off DVR / NVR:** Hikvision / Dahua / Honeywell / Godrej / CP Plus
  - **Make of POE switch:** Hikvision Dahua/ Dlink/ Netgear/true view/ ICom/Tenda
  - **Make of wire:** D-Link/Havells/Honeywell/Polycab /RR Kabel or its equivalent

- **Make of monitor:** Samsung /Dell//ViewSonic/Hikvision/ Dahua/LG/HP
- **Make off DVR rack:** D-Link/ Valrack/ Shinerack or equivalent.
- **Make of conduit pipe:** Medium duty pipe of make BEC / precision / AKG or equivalent
- **Make of hard disk:** Seagate/Western digital surveillance grade

23. Contractor will ensure that CCTV complaint is attended within 48 hours failing which penalty at the rate of rupees 100 per day shall be charged subject to the maximum of quarterly AMC charges of one unit. In case the fault is not rectified within 4 days, LIC may carry out the job by any agency at the contractor's cost and risk.
24. If the CCTV system is adversely affected due to high voltage, damage by rodents, unauthorized repairs, misuse by LIC officials, it shall be got rectified by the Vendor on payment basis. However, the Vendor will have to prove that such damage was caused by means not covered under the AMC. In case of vintage parts, where no spares are available and equipment cannot be repaired, the vendor should submit a report and after getting approval from LIC proceed to change the affected equipment on rate quoted in this tender. In this case payment will be made on production of GST purchase invoice of the component. Additional 15% shall be payable on the purchase cost of the components for Contractor Profit and other overheads.
25. No advance payment will be made to the contractor at the beginning of CAMC or any works. However, any payment of CAMC shall be made on completion of each quarter and completion of actual work. During contract four quarterly payments shall be released to the firm based on satisfactory performance of CCTV system. Contractor will submit a bill in three copies within 15 days on completion of each quarter along with the copy of service reports in respective quarter of the CCTV system, obtained from the user departments/offices. If contractor fails to submit the bill within 1 month after completion of respective quarter it will be presumed that no claim is pending for settlement.
26. **Retrieval of recording on CD/DVD:** As per requirement of the corporation / branch if request is made by the authorities to the vendor for retrieving recording for a particular time period and preparing a CD / DVD / USB / Pen Drive of the same, the vendor would make arrangements to retrieve and provide such recording on CD / DVD / Pen Drive at the earliest but not later than 72 hours in any case. No extra payment for such service shall be made on this count however the cost of CD / DVD / Pen drive shall be payable..

**27. Force Majeure Clause:**

- a. The contractor shall be liable for any delay in execution or failure of their respective obligations under this agreement except for delay caused by occurrence of events beyond control of the bidder, including but not limited to natural calamities, fire, explosions, floods, power shortages, acts of god, hostility, acts of public enemy, wars, riots, strikes, sabotage, order slash action or regulations of government, local or other public authorities.
- b. In case of force major situation arises, the contractor shall immediately notify LIC of India in writing of such conditions and the cause thereof, within two calendar days and prove that such is beyond control and affect the implementation of the agreement.

- c. Unless otherwise directed by LIC of India in writing, the contractor shall continue to perform its obligations under the contracts as far as it is reasonably practical, and shall seek all reasonable means for performance not prevented by the force major event.

## 28. Locations and Equipment for which the vendor has to provide services:

S.No	OFFICE AND ADDRESS	DVR - 4CH	DVR- 8/16 CH	BULLET VERIFOCA L CAMERA	DOM E VERIFOC AL CAMERA	IR DOM E CAME RA	DISP LAY UNI T	RA CK	WIRE RJ-59	POWER WIRE Approx.
1	DIVISION OFFICE JPR	0	1	10	6	1	1	1	220	220
2	BO-1, JAIPUR	1	0	1	1	1	1	1	98	98
3	BO-4, JAIPUR	1	0	1	1	1	1	1	75	75
4	BO CAB-1, JAIPUR	1	0	1	1	1	1	1	80	86
5	BO-5, JAIPUR	1	0	2	1	1	1	1	60	60
6	BO JHOTWARA	1	0	1	1	1	1	1	45	50
7	BO NEEM KA THANA	1	0	1	1	1	1	1	40	40
8	BO KHAIRTHAL	1	0	1	1	1	1	1	66	66
9	BO JHUNJHUNU	1	0	1	1	1	1	1	45	30
10	BO P&GS	1	0	1	1	1	1	1	43	43
11	BO CHIRAWA	1	0	1	1	1	1	1	45	45
12	BO BHIWADI	1	0	1	1	1	1	1	96	96
13	BO ALWAR	1	0	1	1	1	1	1	80	86
14	BO KOTPUTLI	1	0	1	1	1	1	1	35	35
15	BO SIKAR	1	0	1	1	1	1	1	100	100
16	BO CHOMU	1	0	1	1	1	1	1	30	30
17	BO FATEHPUR	1	0	1	1	1	1	1	65	65
18	SO MANSAROWAR	1	0	1	1	1	1	1	20	25
19	SO BHANKROTA	1	0	1	1	1	1	1	30	35
20	SO KALWAR ROAD	1	0	1	1	1	1	1	35	35
21	SO MALVIYA NAGAR	1	0	1	1	1	1	1	40	45
22	SO CLIA JHUNJHUNU	1	0	1	1	1	1	1	66	66
23	SO NAWALGARH	1	0	1	1	1	1	1	40	40
24	SO	1	0	1	1	1	1	1	41	25

	UDAIPURWATI									
25	SO KHETRI	1	0	1	1	1	1	1	30	30
26	SO CLIA ALWAR	1	0	1	1	1	1	1	38	38
27	SO RAJGARH	1	0	1	1	1	1	1	64	64
28	SO KHERLI	1	0	1	1	1	1	1	30	30
29	SO DANTA RAMGARH	1	0	1	1	1	1	1	41	25
30	SO TODINAGAR	1	0	1	1	1	1	1	25	25
31	SO LOSAL	1	0	1	1	1	1	1	60	60
32	SO BEHROR	1	0	1	1	1	1	1	40	40
33	SO SHAHPURA	1	0	1	1	1	1	1	35	35
34	SO SRIMADHOPUR	1	0	1	1	1	1	1	26	26
35	SO HARMADA	1	0	1	1	1	1	1	45	45
	TOTAL	34	1	45	40	35	35	35	1929	1914

29. LIC of India reserves the right to accept or reject or split any or all tenders at its sole discretion without assigning any reasons whatsoever.

30. The above. qty may increase or decrease during the currency of contract.

**SPECIFICATIONS FOR CCTV****4 channel DVR – Single SATA**

<b>Feature</b>	<b>Specification</b>	<b>Compliance</b>
Processor	Embedded Processor	
Operating System	Embedded LINUX	
IP Camera Input	4+1: each channel upto 2MP	
Two-way Talk	Reuse audio in/out RCA	
User Interface	GUI	
Video Input	4 channel BNC	
Video Output	1HDMI/ 1VGA	
Compression	H.265/H.265+	
Video Resolution	1920×1080, 1280×1024 , 1280×720, 1024×768	
Resolution	720P, 960H, D1, HD1, BCIF, CIF, QCIF	
Video Recording	MainStream:1080N/720P/960H/D1/CIF(1~25/30fps) SubstreamCIF:(1~15fps)	
Video Display	Split 4,	
OSD Camera	title, Time Videoloss Camera lock Motiondetection Recording	
Bit Rate	32Kbps 4096 Kbps Per Channel	
Audio Input	1 channel RCA	
Audio Output	1 channel RCA	
Motion Detection	Support	
Video Loss	Support	
Audio Compression	AAC(only for the1 st channel) G.711AG.711UPCM	
Camera Blank	Support	
Smart Phone	iPhone iPad Android Phone	
Hard Disk	1SATA port up to 6TB	
Audio Sample Rate	Rate 8KHz 16 bit Per Channel	
Audio Bit Rate	Rate 64 Kbps Per Channel	
Trigger Events Recording	Recording PTZ Tour Alarm Out Video Push Email FTP	
Playback	1 /4 Channel	



**4 Channel NVR**

Sr. No.		Parameters	Technical Specifications	Compliances
1	Video/Audio input	IP video input	4-Ch / 8 Ch / 16 / 32Ch	
		Two-way audio input	1-ch, RCA (2.0 Vp-p, 1KΩ)	
2	Network	Incoming bandwidth	40Mbps / 80 / 160 Mbps	
		Outgoing bandwidth	80Mbps / 160 / 256 Mbps	
		Remote connection	32 or higher	
3	Video/Audio output	Recording resolution	8MP/6MP/5MP/3MP/1080P/UXGA/720P /VGA/4CIF/DCIF/2CIF/CIF/QCIF	
		Video Compressor	H.265	
		Frame rate	Main stream: 50 fps (P) / 60 fps (N)	
			Sub-stream: 50 fps (P) / 60 fps (N)	
		HDMI & VGA output	HDMI 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz.  VGA : 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz	
4	Decoding	Live view / Playback resolution	6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
		Capability	4CH@1080P	
5	Hard disk	SATA	4ch - 1 SATA , 8ch - 2 SATA , 16ch- 2	
		Capacity	Up to 8 TB for each disk	
6	External interface	Network interface	2 RJ-45 10 /100 / 1000 Mbps self-adaptive Ethernet interface	
		Alarm IO	1 input / 1 output	
		USB interface	1 × USB 3.0 / 2 × USB 2.0	
7	Others	Power supply	12V DC / 100~ 240 VAC	
		Consumption (without hard disk)	≤ 10W / ≤ 20W	
		Working temperature	-10 °C ~ +55 °C (+14 °F ~ + 131 °F)	
		Working humidity	10 % ~ 90 %	
8	Certification	UL , CE , FCC		

**8 Channel DVR – Double SATA**

<b>8 Channel Digital Video Recorder – 2 SATA</b>			
<b>S.N</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliances</b>
1	Compatibility	Analog cameras (mandatory), HDTVI/AHD/CVI/CVBS should be supported	
2	Main Processor / Operating System	Embedded	
3	System Resources	Pentaplex function: recording, playback, live view, backup, remote access over IP network	
4	Recorder Accessability	Should support both through DVR GUI and through Web/Software	
5	Analog / HD Camera Input	Minimum 8ch Analog video input	
6	IP Camera Input	Total 12 IP Channel	
7	Recorder Video Output	Minimum 1 VGA, 1 HDMI	
8	Audio Input	4-ch, RCA / 8-ch via coaxial cable	
9	Audio Output	Minimum 1-ch, RCA	
10	Recorder Bidirectional Talk	1-ch, RCA	
11	Display Screen Mode	1/4/8/9 ALL (Window)	
12	Camera Scheduling	Supported (Continuous/Motion/Event based)	
13	On Screen Display	Date, Time , Camera Title, Video loss alert, motion detection alert, recording, camera tampering	
14	Video/Audio Compression	H.265 or better / G.711 respectively	
15	Encoding Stream	4MP resolution should be supported	
16	Video Bit Rate	32 Kbps to 6 Mbps	
17	Network protocol	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, NFS, UPnP™, HTTPS, ONVIF	
18	Recording Mode	Manual, Schedule, Regular, Motion detection, Event based recording, Stop Recording	
19	Recording Priority	Manual; Alarm; Motion Detection & Regular	
20	Alarm Input	Supported Minimum 4	
21	Relay Output	Supported Minimum 1	
22	Synchronous playback	8-channel	
23	Recorded Data Search Mode	Video Time & Date, Exact search (with Date/Hour/Minute/Second accuracy), Motion Detection, Alarm	

24	Video Intelligence	Advanced Motion detection should be supported on all analog channels with Human and Vehicle classification to reduce false trigger. Perimeter protection: Up to 4-ch Human/Vehicle Analysis. Face picture comparison, face picture search: 1-ch face picture comparison alarm for HD analog camera.	
25	Playback Options	Play, Digital zoom (any size), Pause, Rewind, one click Previous camera, one click Next camera, Full screen mode, Backup selection, Fast forward	
26	Operation Over Network	Monitor, Playback, File download, Log information, System setting,	
27	Hard Drive Storage Option	2 SATA Should support up to 10 TB per SATA port	
28	USB Interface	Minimum 2 Ports	
29	Power Supply	12 VDC	
30	Working Environment	Working temperature: -10 °C to 55 °C ; Working humidity 10% to 90%	
31	Duplex type	Recorder should be able to playback recoded footage without having to stop recording	
32	Certificate	CE/FCC/BIS	

**16 Channel DVR – Double SATA**

<b>16 Channel Digital Video Recorder – 2 SATA</b>			
<b>S.N</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliances</b>
1	Compatibility	Analog cameras (mandatory), HDTVI/AHD/CVI/CVBS should be supported	
2	Main Processor / Operating System	Embedded	
3	System Resources	Pentaplex function: recording, playback, live view, backup, remote access over IP network	
4	Recorder Accessibility	Should support both through DVR GUI and through Web/Software	
5	Analog / HD Camera Input	Minimum 16ch Analog video input	
6	IP Camera Input	Total 24 IP Channel	
7	Recorder Video Output	Minimum 1 VGA, 1 HDMI	
8	Audio Input	4-ch, RCA / 16-ch via coaxial cable	
9	Audio Output	Minimum 1-ch, RCA	
10	Recorder Bidirectional Talk	1-ch, RCA	
11	Display Screen Mode	1/4/8/9/16 ALL (Window)	

12	Camera Scheduling	Supported (Continuous/Motion/Event based)	
13	On Screen Display	Date, Time , Camera Title, Video loss alert, motion detection alert, recording, camera tampering	
14	Video/Audio Compression	H.265 or better / G.711 respectively	
15	Encoding Stream	4MP resolution should be supported	
16	Video Bit Rate	32 Kbps to 6 Mbps	
17	Network protocol	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, NFS, UPnP™, HTTPS, ONVIF	
18	Recording Mode	Manual, Schedule, Regular, Motion detection, Event based recording, Stop Recording	
19	Recording Priority	Manual; Alarm; Motion Detection & Regular	
20	Alarm Input	Supported Minimum 4	
21	Relay Output	Supported Minimum 1	
22	Synchronous playback	16-channel	
23	Recorded Search Mode	Data Video Time & Date, Exact search (with Date/Hour/Minute/Second accuracy), Motion Detection, Alarm	
24	Video Intelligence	Advanced Motion detection should be supported on all analog channels with Human and Vehicle classification to reduce false trigger. Perimeter protection: Up to 4-ch Human/Vehicle Analysis. Face picture comparison, face picture search: 1-ch face picture comparison alarm for HD analog camera.	
25	Playback Options	Play, Digital zoom (any size), Pause, Rewind, one click Previous camera, one click Next camera, Full screen mode, Backup selection, Fast forward	
26	Operation Over Network	Monitor, Playback, File download, Log information, System setting,	
27	Hard Drive Storage Option	2 SATA Should support up to 10 TB per SATA port	
28	USB Interface	Minimum 2 Ports; 1 should be USB 3.0	
29	Power Supply	12 VDC	
30	Working Environment	Working temperature: -10 °C to 55 °C ; Working humidity 10% to 90%	
31	Duplex type	Recorder should be able to playback recorded footage without having to stop recording	
32	Certificate	CE/FCC/BIS	

**8/16 Channel NVR -**

Sr. No.		Parameters	Technical Specifications	Compliances
1	Video/Audio input	IP video input	8 Ch / 16 Ch	
		Two-way audio input	1-ch, RCA (2.0 Vp-p, 1KΩ)	
2	Network	Incoming bandwidth	80 /160 Mbps	
		Outgoing bandwidth	160 / 256 Mbps	
		Remote connection	32 or higher	
3	Video/Audio output	Recording resolution	8MP/6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
		Video Compressor	H.265	
		Frame rate	Main stream: 50 fps (P) / 60 fps (N)	
			Sub-stream: 50 fps (P) / 60 fps (N)	
		HDMI & VGA output	HDMI 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz.	
			VGA : 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz	
4	Decoding	Live view / Playback resolution	6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
		Capability	4CH@1080P	
5	Hard disk	SATA	4ch - 1 SATA , 8ch - 2 SATA , 16ch- 2	
		Capacity	Up to 8 TB for each disk	
6	External interface	Network interface	2 RJ-45 10 /100 / 1000 Mbps self-adaptive Ethernet interface	
		Alarm IO	1 input / 1 output	
		USB interface	1 × USB 3.0 / 2 × USB 2.0	
7	Others	Power supply	12V DC / 100~ 240 VAC	

		Consumption (without hard disk)	$\leq 10W / \leq 20W$	
		Working temperature	$-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$ ( $+14^{\circ}\text{F} \sim +131^{\circ}\text{F}$ )	
		Working humidity	10 % ~ 90 %	
8	Certification	UL , CE , FCC		

**Bullet Cameras HD Fixed Lens**

<b>Full HD Fixed Bullet Camera</b>			
<b>S.No</b>	<b>Parameters</b>	<b>Specification</b>	<b>Compliance Yes/No</b>
1	Camera Type	Analog HD Fixed Bullet	
2	HD Technology	Switchable AHD, CVI, TVI, CVBS	
3	Image Sensor	2MP CMOS Sensor	
4	Signal System	PAL	
5	Effective Pixels	1920(H)x1080(V) or better	
6	Mini. Illumination	0.01 Lux, 0 Lux with IR	
7	TVI	TVI: 1080P@25/30fps	
8	AHD	AHD: 1080P@25/30fps	
9	CVI	CVI: 1080P@25/30fps	
10	CVBS	Supported	
11	AGC	Should Support	
12	White Balance	Automatic	
13	Day & Night	Automatic	
14	Shutter Time	1/25 s to 1/50,000 s	
15	Audio	Built-in mic	
16	Noise Reduction (NR)	2D DNR / 3DNR	
17	White Light	25 mtr or more	
18	Functions	Brightness, Sharpness, Mirror, Smart IR	
19	Lens	2.8 mm/ 3.6 mm lens	
20	Lens Mount	M12	

21	Field of view	2.8 mm, horizontal FOV: 105°, vertical FOV: 56°, diagonal FOV: 124° 3.6 mm, horizontal FOV: 79°, vertical FOV: 43°, diagonal FOV: 93°	
22	WDR	Should Support	
23	Input Voltage	DC12V±25%	
24	IP Rating	IP67	
25	Operation Temp	-40° to +60° C	
26	Storage Humidity	90% or less	
27	Certification	CE/FCC/BIS	

**Dome Camera HD Fixed Lens**

<b>Full HD Fixed Dome Camera</b>			
<b>S.No</b>	<b>Parameters</b>	<b>Specification</b>	<b>Compliance Yes/No</b>
1	Camera Type	Analog HD Fixed Dome	
2	HD Technology	Switchable AHD, CVI, TVI, CVBS	
3	Image Sensor	2MP CMOS Sensor	
4	Signal System	PAL	
5	Effective Pixels	1920(H)x1080(V) or better	
6	Mini. Illumination	0.01 Lux, 0 Lux with IR	
7	TVI	TVI: 1080P@25/30fps	
8	AHD	AHD: 1080P@25/30fps	
9	CVI	CVI: 1080P@25/30fps	
10	CVBS	Supported	
11	AGC	Should Support	
12	White Balance	Automatic	
13	Day & Night	Automatic	
14	Shutter Time	1/25 s to 1/50, 000 s	
15	Audio	Built-in mic	
16	Noise Reduction (NR)	2D DNR / 3DNR	
17	White Light	20 mtr or more	
18	Functions	Brightness, Sharpness, Mirror, Smart IR	
19	Lens	2.8 mm/ 3.6 mm lens	

20	Lens Mount	M12	
21	Field of view	2.8 mm, horizontal FOV: 105°, vertical FOV: 56°, diagonal FOV: 124° 3.6 mm, horizontal FOV: 79°, vertical FOV: 43°, diagonal FOV: 93°	
22	WDR	Should Support	
23	Input Voltage	DC12V±25%	
24	Operation Temp	-40° to +60° C	
25	Storage Humidity	90% or less	
26	Certification	CE/FCC/BIS	

**Dome IP Camera with On-board Storage**

S.No	Feature	Specification	Compliance Yes/ No
1.	Image Sensor	1/2.8" 2 MP Progressive scanCMOS or better	
2.	Effective Pixels	1920 x 1080 or higher	
3.	Video Frame Rate	25/30 fps @ 2 Mega Pixel	
4.	Scanning System	Progressive	
5.	S/N Ratio	More than 55dB	
6.	Min. IR LEDs Length	Up to 30m	
7.	Day/Night	Auto (ICR) / Color / B/W	
8.	Back Light Compensation	True WDR (Minimum 120 dB	
9.	White Balance	Auto/Manual	
10.	Focal Length (lens)	2.8mm /4mm	
11.	Video Compression	H.265 or higher	
12.	Resolution	2 MP (1920x 1080) or higher	
13.	Frame Rate Dual triple Stream)	All streams 2MP @25/30 fps fully configurable	
14.	Bit Rate	H.265: 40K ~ 8192Kbps	
15.	Network Ethernet	RJ-45 with inbuilt microphone	



16.	Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS,	
17.	Compatibility	ONVIF	
18.	API	Open network video interface, ISAPI	
19.	Power Supply	DC12V, PoE (802.3af)	
20.	On-Board storage	<b>Built-in Memory Card slot, Support Micro SD/SDHC/SDXCcard for minimum 128GB with audio.</b>	
21.	Working Environment	-30°C~+60°C / Less than 95%RH (no condensation)	
22.	Ingress Protection	IP67	
23.	Certification	UL & BIS	

**Dome Camera IP Fixed Lens**

SR No.	Camera		Compliances
1	Image Sensor	1/2.8" progressive scan CMOS	
2	Min. Illumination	Color: 0.01 Lux @(F1.2, AGC ON), 0.018Lux @(F1.6, AGC ON)	
3	Shutter Speed	1/3 s to 1/100,000 s, support slow shutter	
4	Slow Shutter	Yes	
5	Day & Night	IR cut filter	
6	Digital Noise Reduction	3D DNR	
7	WDR	120dB	
8	Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 70°, rotation: 0° to 360°	
	<b>Lens</b>		
9	Focal length	2.8mm, 4mm, 6mm	
10	Aperture	F1.6	
11	Focus	Auto, scheduled	
12	FOV	Horizontal field of view: 98° to 34° Vertical field of view: 52° to 19° Diagonal field of view: 116° to 40°	
13	Lens Mount	Φ14	

	<b>IR</b>		
14	IR Range	Up to 30 m	
15	Wavelength	850 nm	
	<b>Compression Standard</b>		
16	Video Compression	Main stream: H.265,H.264	
		Sub stream: H.265,H.264/MJPEG	
17	H.264 Type	Baseline Profile/Main Profile/High Profile	
18	H.264+	Main stream supports	
19	H.265 Type	Main Profile	
20	H.265+	Main stream supports	
21	Video Bit Rate	32 Kbps to 8 Mbps	
	<b>Smart Feature-set</b>		
22	Region of Interest	1 fixed region for main stream and sub-stream	
	<b>Image</b>		
23	Max. Resolution	1920x1080	
24	Main Stream Max. Frame Rate	50Hz: 25fps (1920 × 1080, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 720)	
25	Sub-stream Max. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240)	
26	Image Enhancement	BLC, 3D DNR	
27	Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser	
28	Day/Night Switch	Auto, scheduled	
	<b>Network</b>		
29	Network Storage	Support Micro SD/SDHC/SDXC card (128GB ), local storage and NAS (NFS,SMB/CIFS), ANR	
30	Alarm Trigger	Motion detection, video tampering alarm, network disconnected, IP address conflicted, illegal login	
31	Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour	
32	MAC	MAC ID of the IP camera should be registered with the OEM	
33	General Function	One-key reset, anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark	
34	API	ONVIF (PROFILE S, PROFILE G), ISAPI	
35	Simultaneous Live View	Up to 6 channels	
		Up to 32 users	
36	User/Host	3 levels: Administrator, Operator and User	
37	Web Browser	IIE7+, Chrome18-42, Firefox5.0+, Safari5.02+	
	<b>Interface</b>		

38	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
39	Video Output	1Vp-p composite output (75 $\Omega$ /BNC)	
	<b>General</b>		
40	Operating Conditions	-30 °C to 50 °C (-22 °F to 122 °F), humidity: 95% or less (non-condensing)	
41	Power Supply	12 VDC $\pm$ 25%, 5.5 mm coaxial power plug PoE (802.3af, class 3)	
42	Power Consumption and Current	12 VDC, 0.8 A, Max: 10 W; PoE: (802.3af, 37 V to 57 V), 0.35 A to 0.2 A, Max: 12 W	
43	Protection Level	IP67, IK10	
		TVS 2000V lightning protection, surge protection and voltage transient protection	
44	Material	Metal & Plastic	
45	Dimensions	Camera: $\Phi$ 141 mm $\times$ 99.9 mm (5.6" $\times$ 3.9")	
		With package: 140 mm $\times$ 140 mm $\times$ 154 mm (5.5" $\times$ 5.5" $\times$ 6.1")	
46	Weight	Camera: Approx. 830 g (1.8 lb.)	
		With package: Approx. 1070 g (2.4 lb.)	
47	Certifications	UL,CE,FCC	

**Bullet Camera IP Fixed Lens**

SR No.	Camera	Compliances
1	Image Sensor	1/2.8" progressive scan CMOS
2	Min. Illumination	Color: 0.01 Lux @(F1.2, AGC ON), 0.018Lux @(F1.6, AGC ON)
3	Shutter Speed	1/3 s to 1/100,000 s, support slow shutter
4	Slow Shutter	Yes
5	Day & Night	IR cut filter
6	Digital Noise Reduction	3D DNR
7	WDR	120dB
8	Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 70°, rotation: 0° to 360°
	<b>Lens</b>	
9	Focal length	2.8mm, 4mm, 6mm
10	Aperture	F1.6
11	Focus	Auto, scheduled
12	FOV	Horizontal field of view: 98° to 34° Vertical field of view: 52° to 19° Diagonal field of view: 116° to 40°
13	Lens Mount	$\Phi$ 14
	<b>IR</b>	
14	IR Range	Up to 30 m

15	Wavelength	850 nm	
	<b>Compression Standard</b>		
16	Video Compression	Main stream: H.265,H.264	
		Sub stream: H.265,H.264/MJPEG	
17	H.264 Type	Baseline Profile/Main Profile/High Profile	
18	H.264+	Main stream supports	
19	H.265 Type	Main Profile	
20	H.265+	Main stream supports	
21	Video Bit Rate	32 Kbps to 8 Mbps	
	<b>Smart Feature-set</b>		
22	Region of Interest	1 fixed region for main stream and sub-stream	
	<b>Image</b>		
23	Max. Resolution	1920x1080	
24	Main Stream Max. Frame Rate	50Hz: 25fps (1920 × 1080, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 720)	
25	Sub-streamMax. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240)	
26	Image Enhancement	BLC, 3D DNR	
27	Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser	
28	Day/Night Switch	Auto, scheduled	
	<b>Network</b>		
29	Network Storage	Support Micro SD/SDHC/SDXC card (128GB ), local storage and NAS (NFS,SMB/CIFS), ANR	
30	Alarm Trigger	Motion detection, video tampering alarm, network disconnected, IP address conflicted, illegal login	
31	Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour	
32	MAC	MAC ID of the IP camera should be registered with the OEM	
33	General Function	One-key reset, anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark	
34	API	ONVIF (PROFILE S, PROFILE G), ISAPI	
35	Simultaneous Live View	Up to 6 channels	
		Up to 32 users	
36	User/Host	3 levels: Administrator, Operator and User	
37	Web Browser	IIE7+, Chrome18-42, Firefox5.0+, Safari5.02+	
	<b>Interface</b>		
38	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
39	Video Output	1Vp-p composite output (75 Ω/BNC)	
	<b>General</b>		

40	Operating Conditions	-30 °C to 50 °C (-22 °F to 122 °F), humidity: 95% or less (non-condensing)	
41	Power Supply	12 VDC $\pm$ 25%, 5.5 mm coaxial power plug PoE (802.3af, class 3)	
42	Power Consumption and Current	12 VDC, 0.8 A, Max: 10 W; PoE: (802.3af, 37 V to 57 V), 0.35 A to 0.2 A, Max: 12 W	
43	Protection Level	IP67 TVS 2000V lightning protection, surge protection and voltage transient protection	
44	Material	Metal & Plastic	
45	Dimensions	Camera: $\Phi$ 141 mm $\times$ 99.9 mm (5.6" $\times$ 3.9") With package: 140 mm $\times$ 140 mm $\times$ 154 mm (5.5" $\times$ 5.5" $\times$ 6.1")	
46	Weight	Camera: Approx. 830 g (1.8 lb.) With package: Approx. 1070 g (2.4 lb.)	
47	Certifications	UL,CE,FCC	

**Dome / Bullet Cameras HD Varifocal Lens**

<b>Full HD Varifocal Dome Camera</b>			
<b>S.No</b>	<b>Parameters</b>	<b>Specification</b>	<b>Compliance Yes/No</b>
1	Camera Type	Analog HD Varifocal Dome / Bullet	
2	HD Technology	Switchable AHD, CVI, TVI, CVBS	
3	Image Sensor	2MP CMOS Sensor	
4	Signal System	PAL	
5	Effective Pixels	1920(H) $\times$ 1080(V) or better	
6	Mini. Illumination	0.01 Lux, 0 Lux with IR	
7	TVI	TVI: 1080P@25/30fps	
8	AHD	AHD: 1080P@25/30fps	
9	CVI	CVI: 1080P@25/30fps	
10	CVBS	Supported	
11	AGC	Should Support	
12	White Balance	Automatic	
13	Day & Night	Automatic	
	Auto Exposure Mode	BLC, HLC	
14	Shutter Time	1/25 s to 1/50,000 s	
15	Noise Reduction (NR)	3D DNR	

16	White Light	Up to 40 m or more	
17	Functions	Brightness, Contrast, Mirror, Smart IR, Sharpness, Saturation	
18	Lens	2.7 mm to 13.5 mm varifocal lens	
19	Lens Mount	Φ14	
20	Field of view	Horizontal FOV: 100° to 30°, vertical FOV: 50° to 17°, diagonal FOV: 115° to 34°	
21	WDR	Should support 120dB	
22	Input Voltage	DC12V±15%	
23	Operation Temp	-40° to +60° C	
24	Storage Humidity	90% or less (non-condensing)	
25	Protection Level	IP67, IK10 (Dome) IP67 (Bullet)	
26	Certification	CE/FCC/BIS	

**Dome Camera IP Varifocal Lens**

Sr No.	Camera		Compliances
1	Image Sensor	1/2.8" progressive scan CMOS	
2	Min. Illumination	Color: 0.01 Lux @(F1.2, AGC ON), 0.018Lux @(F1.6, AGC ON)	
3	Shutter Speed	1/3 s to 1/100,000 s, support slow shutter	
4	Slow Shutter	Yes	
5	Day & Night	IR cut filter	
6	Digital Noise Reduction	3D DNR	
7	WDR	120dB	
8	Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 70°, rotation: 0° to 360°	
	<b>Lens</b>		
9	Focal length	2.8 to 12 mm	
10	Aperture	F1.6	
11	Focus	Motorized Lens	
12	FOV	Horizontal field of view: 98° to 34° Vertical field of view: 52° to 19° Diagonal field of view: 116° to 40°	
13	Lens Mount	Φ14	
	<b>IR</b>		
14	IR Range	Up to 30 m	
15	Wavelength	850 nm	

	<b>Compression Standard</b>		
16	Video Compression	Main stream: H.265,H.264	
		Sub stream: H.265,H.264/MJPEG	
17	H.264 Type	Baseline Profile/Main Profile/High Profile	
18	H.264+	Main stream supports	
19	H.265 Type	Main Profile	
20	H.265+	Main stream supports	
21	Video Bit Rate	32 Kbps to 8 Mbps	
	<b>Smart Feature-set</b>		
22	Region of Interest	1 fixed region for main stream and sub-stream	
	<b>Image</b>		
23	Max. Resolution	1920x1080	
24	Main Stream Max. Frame Rate	50Hz: 25fps (1920 × 1080, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 720)	
25	Sub-streamMax. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240)	
26	Image Enhancement	BLC, 3D DNR	
27	Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser	
28	Day/Night Switch	Auto, scheduled	
	<b>Network</b>		
29	Network Storage	Support Micro SD/SDHC/SDXC card (128GB ), local storage and NAS (NFS,SMB/CIFS), ANR	
30	Alarm Trigger	Motion detection, video tampering alarm, network disconnected, IP address conflicted, illegal login	
31	Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour	
32	MAC	MAC ID of the IP camera should be registred with the OEM	
33	General Function	One-key reset, anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark	
34	API	ONVIF (PROFILE S, PROFILE G), ISAPI	
35	Simultaneous Live View	Up to 6 channels	
		Up to 32 users	
36	User/Host	3 levels: Administrator, Operator and User	
37	Web Browser	IIE7+, Chrome18-42, Firefox5.0+, Safari5.02+	
	<b>Interface</b>		
38	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
39	Video Output	1Vp-p composite output (75 Ω/BNC)	
	<b>General</b>		
40	Operating Conditions	-30 °C to 50 °C (-22 °F to 122 °F), humidity: 95% or less (non-condensing)	
41	Power Supply	12 VDC ± 25%, 5.5 mm coaxial power plug PoE	

		(802.3af, class 3)	
42	Power Consumption and Current	12 VDC, 0.8 A, Max: 10 W; PoE: (802.3af, 37 V to 57 V), 0.35 A to 0.2 A, Max: 12 W	
43	Protection Level	IP67, IK10	
		TVS 2000V lightning protection, surge protection and voltage transient protection	
44	Material	Metal & Plastic	
45	Dimensions	Camera: $\Phi$ 141 mm $\times$ 99.9 mm (5.6" $\times$ 3.9")	
		With package: 140 mm $\times$ 140 mm $\times$ 154 mm (5.5" $\times$ 5.5" $\times$ 6.1")	
46	Weight	Camera: Approx. 830 g (1.8 lb.)	
		With package: Approx. 1070 g (2.4 lb.)	
47	Certifications	UL,CE,FCC	

**Bullet Camera IP Varifocal Lens**

Sr No.	Camera		Compliances
1	Image Sensor	1/2.8" progressive scan CMOS	
2	Min. Illumination	Color: 0.01 Lux @(F1.2, AGC ON), 0.018Lux @(F1.6, AGC ON)	
3	Shutter Speed	1/3 s to 1/100,000 s, support slow shutter	
4	Slow Shutter	Yes	
5	Day & Night	IR cut filter	
6	Digital Noise Reduction	3D DNR	
7	WDR	120dB	
8	Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 70°, rotation: 0° to 360°	
	<b>Lens</b>		
9	Focal length	2.8 to 12 mm	
10	Aperture	F1.6	
11	Focus	Motorized Lens	
12	FOV	Horizontal field of view: 98° to 34° Vertical field of view: 52° to 19° Diagonal field of view: 116° to 40°	
13	Lens Mount	$\Phi$ 14	
	<b>IR</b>		
14	IR Range	Up to 30 m	
15	Wavelength	850 nm	
	<b>Compression Standard</b>		
16	Video Compression	Main stream: H.265,H.264	
		Sub stream: H.265,H.264/MJPEG	
17	H.264 Type	Baseline Profile/Main Profile/High Profile	
18	H.264+	Main stream supports	



19	H.265 Type	Main Profile	
20	H.265+	Main stream supports	
21	Video Bit Rate	32 Kbps to 8 Mbps	
	<b>Smart Feature-set</b>		
22	Region of Interest	1 fixed region for main stream and sub-stream	
	<b>Image</b>		
23	Max. Resolution	1920x1080	
24	Main Stream Max. Frame Rate	50Hz: 25fps (1920 × 1080, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 720)	
25	Sub-stream Max. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240)	
26	Image Enhancement	BLC, 3D DNR	
27	Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser	
28	Day/Night Switch	Auto, scheduled	
	<b>Network</b>		
29	Network Storage	Support Micro SD/SDHC/SDXC card (128GB ), local storage and NAS (NFS,SMB/CIFS), ANR	
30	Alarm Trigger	Motion detection, video tampering alarm, network disconnected, IP address conflicted, illegal login	
31	Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour	
32	MAC	MAC ID of the IP camera should be registered with the OEM	
33	General Function	One-key reset, anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark	
34	API	ONVIF (PROFILE S, PROFILE G), ISAPI	
35	Simultaneous Live View	Up to 6 channels Up to 32 users	
36	User/Host	3 levels: Administrator, Operator and User	
37	Web Browser	IIE7+, Chrome18-42, Firefox5.0+, Safari5.02+	
	<b>Interface</b>		
38	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port	
39	Video Output	1Vp-p composite output (75 Ω/BNC)	
	<b>General</b>		
40	Operating Conditions	-30 °C to 50 °C (-22 °F to 122 °F), humidity: 95% or less (non-condensing)	
41	Power Supply	12 VDC ± 25%, 5.5 mm coaxial power plug PoE (802.3af, class 3)	
42	Power Consumption and Current	12 VDC, 0.8 A, Max: 10 W; PoE: (802.3af, 37 V to 57 V), 0.35 A to 0.2 A, Max: 12 W	
43	Protection Level	IP67	

		TVS 2000V lightning protection, surge protection and voltage transient protection	
44	Material	Metal & Plastic	
45	Dimensions	Camera: $\Phi$ 141 mm $\times$ 99.9 mm (5.6" $\times$ 3.9")	
		With package: 140 mm $\times$ 140 mm $\times$ 154 mm (5.5" $\times$ 5" $\times$ 6.1")	
46	Weight	Camera: Approx. 830 g (1.8 lb.)	
		With package: Approx. 1070 g (2.4 lb.)	
47	Certifications	UL,CE,FCC	

**MONITOR FOR CCTV -22"**

<b>22 Inch Display - DS-D5022QE-B</b>			
<b>SR No.</b>	<b>Parameters</b>	<b>Specification</b>	<b>Compliance</b>
1	Display Type	LED-Backlit TFT LCD	
2	Screen Size	21.5"	
3	Pixel Pitch	0.248 mm (H) × 0.248 mm (V)	
4	Max Resolution	1920x1080	
5	Brightness	250cd/m <sup>2</sup>	
6	Contrast	[1000:1]	
7	Response Time	5 ms	
8	Color	16.7M	
9	Viewable Area (HxV)	476.64mm × 268.11mm	
10	Viewing Angle	Horizontal 170°, Vertical 160°	
	Interfaces		
11	HDMI Input	1	
12	VGA Input	1	
13	VESA	100mm x 100mm	
14	Power Supply	100 ~ 240V AC, 50/60Hz	
15	Power Consumption	≤ 30W	
16	Operation Temperature	0°C ~ 40°C	
17	Operating Humidity	10%~85% (No Condensation)	
18	Storage Temperature	-20°C ~ 55°C	
19	Dimension (WxHxD))	511mm × 313mm × 46mm	
20	Weight	4.5 Kg(Gross weight) , 3.3 Kg(Net weight)	

**Power Supply for DVR / Cameras**

<b>Feature</b>	<b>Specification</b>	<b>Compliance</b>
AC Input Voltage	150~265VAC	
DC Output voltage	12~15VDC	
Rated Power	120W	
Ripple & Noise (max.)	120mV(max)	
Voltage Adj. Range	12~15V	
Device	Primary-Side Regulation	
Device(frequency)	132KHz	
VDS Voltage	575V(max)	
Line Regulations	±1%	
Load Regulations	±5%	
SCP	Output short-circuit protection	

OPP, OCP	Output overload/over-current protection	
OVP	Output overvoltage protection, auto-restart or latching	
line UV	Line brown-in/out protection	
OV	Line overvoltage shutdown extends line surge withstand	
OTP	Accurate thermal shutdown, hysteresis or latching	
Efficiency(Typ.)	83%	
Frequency Range	47~63HZ	
Storage Temperature	0-50°C	

**PoE 4/8/16 port 10/100 with two Giga-bit Uplinks****Web-managed PoE switch with 4/ 8 / 16 PoE ports**

SR No.	Parameters	Specification	Compliance Yes/No
	<b>Port</b>		
1	10/100M RJ45	4ports /8 ports /16 ports	
2	10/100/1000M RJ45 (Uplink)	2	
3	1000M SFP	2 (multiplex)	
4	Port of high priority	Port 1 to 8	
	<b>Performance</b>		
5	Store-and-forward	Support	
6	MAC address table	4K	
7	MAC address learning	Automatic learning/Aging	
8	Backplane bandwidth	5.4 Gbps (08 Ports) / 7.2 Gbps (16 Ports)	
	<b>PoE</b>		
9	PoE standard	IEEE 802.3af, IEEE802.3at	
10	PoE cable core	Supports 8-core power supply and simultaneous power supply via the 1236 and 4578 line order.	
11	PoE port	Port 1 to 8 (8 port Switch) / Port 1 to 16 (16 port Switch)	
12	Port max. power	30W	
13	Switch max. power	123W (8 port Switch) / 230 W (16 port Switch)	
	<b>Lighting Protection Grade</b>		
14	For port	4 KV	
15	For power supply	6 KV	
16	Power Supply	100 to 240 VAC, 50/60Hz	

	<b>Operating Environment</b>		
17	Working environment	Temperature: 0 °C to +40 °C (+32 °F to +104 °F) Humidity: 10% to 90% (Relative humidity, without condensation)	
18	Storage environment	Temperature: -40 °C to +70 °C (-40 °F to +158 °F) Humidity: 5% to 90% (Relative humidity, without condensation)	
19	Data Transfer Rate	Ethernet: 10 Mbps (half-duplex)/20 Mbps (full-duplex) Fast Ethernet: 100 Mbps (half-duplex)/200 Mbps (full-duplex) Gigabit Ethernet: 2000 Mbps (full-duplex)	
20	Network Media	Ethernet: UTP/STP of CAT3 or above Fast Ethernet: UTP/STP of CAT5 or above Gigabit Ethernet: Recommended UTP/STP of CAT5e or CAT6 1000 Base-SX: MMF (Multi-Mode Fiber) 1000 Base-LX: MMF (Multi-Mode Fiber) or SMF (Single Mode Fiber)	
21	Network Standard	IEEE 802.3, IEEE 802.3u, IEEE802.3ab, IEEE 802.3af, IEEE802.3at, IEEE 802.3x, IEEE802.3z	
22	Port	When the EXTEND mode is enabled, the maximum data transmission (for 10 Mbps full/half duplex communication only) and power supply distance can be extended to 250 meters via CAT5e twisted pair or above.	
23	PoE	IEEE 802.3at/IEEE 802.3af Enable/Disable PoE PoE over-temperature protection Display power supply status and output power of the PoE port Dynamic power supply of the PoE port. Power supply priority (Port 1 > Port 2 > ... > Port 16... > Port 24)	
24	Security Feature	MAC address binding	
25	VLAN	One-key enable VLAN Port VLAN (Max. 18/26 groups can be configured) IEEE 802.1Q VLAN (Max. 31 groups can be configured)	
26	Port Trunk	3 groups: Port 1, 2, 3 and 4 Port 5, 6, 7 and 8 Port G1/G1-F and G2/G2-F	
27	STP (Spanning Tree)	IEEE 802.1d Spanning Tree Protocol IEEE 802.1w RSTP (Rapid Spanning Tree Protocol)	
28	Multicasting	GMP Snooping and IGMP v1/v2	

29	Mirroring	N: 1 port mirroring	
30	QoS	FIFO (First-in First-out) SP (Strict Priority) WP (Weighted Priority)	
31	MAC Address Management	MAC address aging and static MAC address configuration	
32	Loading and Upgrade	HTTP upgrade Import/Export configuration file	
33	Management and Maintenance	SNMP v1/v2 WEB management	

**CCTV cable**

<b>PVC Dielectric Core over Solid Copper (AWG 20), Copper braid shield for copper conductor, copper (stranded) three core twisted power wire and having nominal impedance 75 Ohms.</b>	
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**Cat-6A Cable**

Features	Specifications	Compliance
Conductor Metal:	Bare Copper	
Color Code:	Gray	
Conductor:	23 AWG(0.574 ±0.007mm) Multi-cores (Solid)	
Insulation Material:	HD-PE OD: 1.04 ±0.05mm	
Average Thickness:	Thickness: 0.23 mm	
Jacket hardness:	45P (90A ± 2A Shore)	
Jacket Material:	PVC UL94V-0 OD: 6.6mm ±0.2	
Average Thickness:	0.6 mm	
PE Central	Cross	
Heat-resistant: 75OC	minimum (Temperature limited)	
Mutual Capacitance:	5.6nF/100m nominal	
Characteristic Impedance:	100Ω±15%	
Operating Temperature:	-20 <sup>0</sup> -60 <sup>0</sup>	
Storage Temperature:	-20 <sup>0</sup> -80 <sup>0</sup>	

**Conduit Pipe**

<b>Branded Pipes in white of medium thickness suitable for laying of Cables fixed on walls directly with saddles.</b>	
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**DVR/NVR Rack**

<b>Metal Rack built with 0.8mm thickness sheet, powder coated, rust free complete with FAN and PDU. Dimensions 500mm X 550mm and 4 U height.</b>	
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**PoE Rack**

Plastic/ ABS Box with lock-key facility and of appropriate size for placing the PoE for protection from weather

**4x4 Box**

Plastic/ ABS box for camera mounting and for placing the connectors (BNC, DC, RJ45 etc.) inside for better protections.

**Camera Jali**

Pre-fabricated Iron Jali to protect the Dome or bullet cameras installed outside the buildings.

**Iron Camera Stand**

IRON Camera stand with good finish and painted in white preferably, suitable for PROTECTION of Dome or Bullet cameras installed on outside walls or pillars or other open spaces.

**VGA Cable**

VGA Cable should be branded and support 4K resolutions

**HDMI Cable**

HDMI Cable should be branded and support 4K resolutions

**VGA Extender 20-60 meter**

The Extender should be branded and of the Active (powered on electricity) type. At the receiver end it should be able to integrate mouse for controlling along with VGA cable.

**HDMI Cable 20-60 Meter**

The Extender should be branded and of the Active (powered on electricity) type. At the receiver end it should be able to integrate mouse for controlling along with HDMI cable.

## Schedule of Quantity

<b>( A ) Comprehensive Annual Maintenance Contract of installed CCTV systems at different BO and SO under DO-1, Jaipur.</b>					
<b>Sr.No.</b>	<b>Item Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
	<b>HVAC Work</b>				
<b>1</b>	Comprehensive Annual Maintenance Contract of installed CCTV system at Jeevan Prakash Building, Divisional Office-1, Jaipur.	<b>1</b>	<b>Per Annum</b>	<b>9382</b>	<b>9382.0</b>
<b>2</b>	Comprehensive Annual Maintenance Contract of installed CCTV systems at Different BO,s and SO,s under Divisional Office-1, Jaipur. ( list enclosed)	<b>34</b>	<b>Per Annum</b>	<b>5302</b>	<b>180268.0</b>
	Total estimated amount of CAMC of installed CCTV Systems	<b>A</b>			<b>189650.0</b>

**( Rs. One Lakh Eighty Nine Thousand Six Hundred Fifty only)**

**Please quote your most competitive percentage rates in summary of cost page 41**

**Please Note, the CAMC charges are including of following:-**

1. Quarterly visit ( once in three months ) for preventive maintenance. There must be a gap of at least 60 days in 02 consecutive P.M visits.
2. Any number of Breakdown to be attended within 48 hours excluding travel time and Holidays.
3. Replacements of any parts for satisfactory operation of the installed CCTV systems including Cameras, DVR / NVR, Display Unit, Wires, Panel, power supply etc. -No charge shall be paid for this. The agency have to replace the faulty parts with similar configuration / make, without changing the originality of the installed system.
4. The above CAMC charges are excluding GST, which will be payable as per applicable rates.
5. Payment shall be made on quarterly basis subject to the submission of Preventive Maintenance Report duly counter-signed by respective Branch Authority /Divisional authority/officials.
6. If the lowest agency fail to attend the complaint within 96 hours, the rectification works shall be done at his risk & cost through other vendor and the expenditure incurred in this shall be recovered from his bill /Security Deposit.
7. No extra cost shall be paid on any account such as Labor charges, TA/DA etc.



**Summary of Cost**

**(Please quote your most competitive percentage rates in column given below)**

To,  
The Sr. Divisional Manager  
LIC OF INDIA,  
Division office-1, Jaipur

Subject:- Tender For Comprehensive Annual Maintenance Contract of installed CCTV systems at Divisional Office, different BO's, SO's and other offices under **DO-1, Jaipur**.

Dear Sir,

We Have examined the tender documents, terms and conditions stipulated therein , specifications of work etc. we the undersigned offer to execute the work of the subject cited above in conformity with the said specifications and conditions of contract at the standard schedule percentage rates quoted on estimated value ( Rs.1,89,650/-) on page 40 are as under:

I/We submit our percentage rate as below:-

a. Quoted percentage above (in figure).....

Quoted percentage above (in words).....

b. At Par (in words).....

c. Quoted percentage below ( in figure).....

Quoted percentage below ( in words).....

**Final Quoted Amount after incorporating the quoted percentage:-**

Rs.....

**Sr. Divisional Manager**

**Signature of Contractor**  
**(with seal & date )**