



**Government of Khyber Pakhtunkhwa
Ayub Teaching Hospital
Medical Teaching Institution, (ATH) Abbottabad**

Standard Bidding Document

FOR

Procurement of CCTV Surveillance

Under National Competitive Bidding (NCB)

Tender (2025-26)

PREFACE

These Standard Bidding Documents have been prepared for use & prepared by the Ayub Medical & Teaching Institution Abbottabad, for procurement of CCTV Surveillance, through National Competitive Bidding (NCB) Khyber Pakhtunkhwa via E-PADS.

The standard bidding documents for procurement of the said Bidding Documents are grouped in five parts:

- Part – I Mandatory Documents
- Part – II Instructions to Bidders (ITB)
- Part – III Technical Evaluation Performa
- Part – IV List of CCTV Surveillance with Specifications and required
Warranty

PART – I

Mandatory Documents

- a) Registration Certificate for NTN, STRN.
- b) Active on ATL for NTN & STRN.
- c) 100% compliance to specification.
- d) Last one year bank statement.
- e) Last Year Tax return.
- f) Last year bank statement.
- g) Affidavit on judicial stamp paper duly attested mentioning following statements:
 - (i) 2% CDR is attached with financial bid.
 - (ii) The firm is not black listed.
 - (iii) Non-shareholder Certificate (That no employee of Ayub Teaching Hospital, Abbottabad is shareholder in the firm's business).
- h) Warranty as per bidding documents.
- i) Certificate of 100% compliance with purchaser's specifications shall be provided on Firm/Company letter head.

Notes:

- 1. Any Documents Missing in the mandatory documents will leads to disqualification.**
- 2. If required Pre-bid meeting will be held on 13 November, 2025**

PART – II

Instructions to Bidders (ITB)

(A) General:

1. Scope of Bid

AMTI invites bids for supply of **CCTV Surveillance** Items specified in Schedule of Requirements along with Technical Specifications and related after sales services incidental thereto to meet the requirements AMTI Abbottabad with Bid Reference Number for the procurement activity as mentioned in Bid Data Sheet (BDS).

2. Source of Funds

AMTI Abbott bad

3. Eligible Bidders

3.1 This Invitation for Bidders (IFB) is open to all eligible registered manufacturers, registered importers and authorized dealers of **CCTV Surveillance**. The Importer/Authorized dealer must possess valid authorization from the Principal origin. Furthermore, all the items quoted must be registered with the relevant forum.

3.2 Bidders under the declaration of ineligibility for corrupt and fraudulent practices issued by the Government (Federal, Provincial or Local) or a public sector organization are NOT ELIGIBLE.

4. Corruption and Fraud

4.1 The Government of Khyber Pakhtunkhwa defines Corrupt and Fraudulent Practices as, "*offering, giving, receiving or soliciting of anything of value to influence the action of the public official or the supplier or the contractor in the procurement process or in contract execution to the detriment of the Procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of contract, collusive practices among bidder (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive and any request for or solicitation of anything of value by any public official in the course of the exercise of this duty*".

4.2 Indulgence in corruption and fraudulent practices is liable to result in rejection of Bids, cancellation of contract, debarring and blacklisting of the bidder, for a stated or indefinite period of time.

5. Bidding for Selective Items

A Bidder, if he so chooses, can bid for selective items from the list of goods provided for the schedule of Requirements. A Bidder is also at liberty to bid for all the goods mentioned in the Schedule of Requirements provided he fulfills the requirements.

However, a Bidder cannot bid for partial quantities of an item in the Schedule of Requirement. THE BID MUST BE FOR THE WHOLE QUANTITY OF AN ITEM REQUIRED IN THE SCHEDULE OF REQUIREMENT

(B) The Bidding Procedures:

1. The Governing Rules

The Bidding procedure shall be governed by the Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services KPPRA Rules, 2014.

2. Applicable Bidding Procedure

The bidding procedure is governed by thy Rule 06 Para (2) KPPRA Rules, 2014.

3. The bidding procedure is explained below:

Single Stage, Two Envelop Procedure (Rule 2(b) KPPRA 2014) via E-PADS KP-PPRA.

- i) The bid shall be submitted through E-PADS both the Technical Proposal and the Financial Proposal.
- ii) The files shall be marked as "TECHNICAL PROPOSAL" and "FINANCIAL PROPOSAL" **FOR CCTV SURVEILLANCE** in bold and legible letters to avoid confusion.
- iii) Initially the "TECHNICAL PROPOSAL" shall be downloaded; technical proposal is to determine the technical strength and consideration of the illegibility of the firm for the bidding process, which is to be carried out before the opening the financial bids.
- iv) The "FINANCIAL PROPOSAL" shall be only be downloaded and opened after the successful technical evaluation.
- v) The Technical Evaluation Committee (TEC) shall evaluate the technical proposal, without reference to the price and reject any proposal which do not conform the specified requirements.
- vi) During the technical evaluation no amendments in the technical proposal shall be permitted.
- vii) The financial proposals of bids shall be opened publicly at a time, date and venue to be announced and communicated to the Bidders in advance in accordance with KP-PPRA Rules through procuring entity website and E-PADS.
- viii) After the evaluation and approval of the technical proposal the Purchase committee shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only.
- ix) The bid found to be the lowest offered price shall be accepted.

Preparation of Bids

(A) The Bidding Documents:

1. Contents of the Bidding Documents

The Bidding Documents include

2. Language of Bids

2.1 All Correspondences, communications associated with preparation of Bids, clarifications, amendments, submissions shall be written in English/Urdu. Supporting documents and printed literature furnished by the Bidder may be in

any language provided they are accompanied by an accurate translation of the relevant passages in English/urdu, in which case, for purpose of interpretation of the Bid, the said translation shall take precedence.

3. Bid Price

3.1 The Bidders should quote the prices of the goods according to the technical specifications the technical specifications of goods; different from the required specifications shall straightway be rejected.

3.2 The Bidder is required to offer a competitive price which must include all the taxes, levies, duties, prescribed prices.

If there is no mention of taxes, the offered/quoted price shall be considered as inclusive of all prevailing taxes/duties, etc.

3.3 The benefit of exemption from or reduction in the taxes and duties shall be passed as per Govt. rules.

3.3 Prices offered should be for the entire quantity of an item demanded in the Schedule of Requirement; partial quantity offered shall be straightway rejected. Conditional or alternate offer shall also be considered as non-responsive bid.

3.4 While making a price quote, trends/inflation in the rate of goods and services in the market should be kept in mind. No request for increase in price due to market fluctuation in the cost of goods or services shall be entertained.

4. Bid Currencies

Price shall be quoted in Pakistani Rupees.

5. Bid Validity

5.1 Bid Validity is for 90 days.

5.2 The TEC shall ordinarily be under an obligation to process and evaluate the bid within the stipulated bid validity period. However, under exceptional circumstances and for reason to be recorded in writing, if an extension is considered necessary, all those who have submitted their bids shall be asked to extend their respective bid validity period. Such extension shall be for not more than the period to the period of original bid validity.

5.3 Bidders who;

- a) Agree to the Competent Authority request for extension of bid validity period shall not be permitted to change the substance of their bids; and
- b) Do not agree an extension of the bid validity period shall be allowed to withdraw their bids without forfeiture of their bid securities.

6. Format and Signing of Bids

6.1 The bidder shall prepare and submit its bid and provide original documents bas appropriate. Copies of any documents must be stamped and signed by the bidders.

6.2 The Bid shall be accompanied by the original receipt for the payments made for the purchase of the bidding document. In an event where the Bidder has downloaded the bidding document from the web, they will require to get the original payment receipt of the prescribed fee from the Procuring cell well before the date of submission of bid.

6.3 The original bid shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to Contract. The person or person signing the bid shall initial all pages of the bid form.

6.4 Any interlinear actions, erasures or overwriting shall valid only if they are initiated by the person or persons signing the bid.

6.5 Any tempering, illegitimate inclusion or exclusion in any part of the Standard Bidding Documents shall lead to disqualification of the bidder.

Submission Of Bids

7. Submission of Bids

The "TECHNICAL PROPOSAL" and "FINANCIAL PROPOSAL" of Laboratory chemical On Regent Basis shall be uploaded on E-PADS according to the dates mentioned in the advertisement.

8. Late Bids

Any bid if not uploaded to portal before the end time shall Not be entertained later.

9. Withdrawal of Bids

9.1 The Bidder may withdraw its bid after the bid's submission and prior to the deadline prescribed for opening of bids.

9.2 No bid may be withdrawn in the period between deadline for submission of bids and the expiration of the period of bid validity specified. Withdrawal of a bid during this period may result in forfeiture of the Bid Security submitted by the Bidder

Opening and Evaluation of Bids

1. Opening of Bids by Procuring Agency

1.1 All bids received through E-PADS shall be opened by the Tender opening committee (Purchase Committee) publicly in the presence of the Bidders or their representatives on the date, time and venue prescribed in Advertisement.

1.2 All Bidders in attendance shall sign an attendance sheet.

1.3 The Purchaser shall open one bid at a time and read out aloud its contents which may include name of the Bidder, the presence or absence of requisite bid security CDR, and such other details as the Purchaser, at its discretion, may consider appropriate if not in conflict with Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rule 2014 specifically Rule 37.

1.4 The Procuring cell shall have the minutes of the Bid opening (technical and when applicable financial) recorded.

1.5 No Bid shall be rejected at technical proposal/bid opening, except for late bids, Tender fee receipt & non submission of Original CDR and judicial stamp papers.

1.6 The uploaded bid without Bid Security CDR shall not be accepted. However, the Chairman of the Purchase/Procurement Committee shall record a statement giving reasons for not accepting such bid(s).

2. Clarification of Bids

During evaluation of the bids the TEC may, at its discretion, ask the bidder for a clarification and the response shall be in writing and no change in the prices or substance of the bid shall be sought, offered or permitted.

3. Examination of Technical BIDS

After opening of the bids by Purchase Committee, the bids will be forwarded to TEC FOR Technical Evaluations.

4. Examination of Financial BIDS

4.1 The firms achieved the qualified marks in technical evaluation against the quoted items so as its financial bids will be opened by Purchase Committee.

4.2 In the financial bids the arithmetical errors shall be rectified on the following basis.

- a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected.
- b) If the Bidder does not accept the correction of the error, its bid shall be rejected, and its Bid Security may be forfeited.
- c) If there is a discrepancy between words and figures, the amount in words shall prevail.

d) For the purpose of comparison of bids quoted in different currencies, the price shall be converted into Pak Rupees. The rate of exchange shall be the Selling rate, prevailing on the date of opening of bids specified in the bidding documents, as notified by the State Bank of Pakistan/National Bank of Pakistan on that day.

e) A bid once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations and policies that are in force at the time of issue of notice for invitation of bids.

f) The procurement cell prepared the comparative statements of the product and purchase committee approved the items

5. Announcement of Evaluation Report

The TEC may announce the results of the bid evaluation in form of a report through its website of the institution or display office notice board, giving justification for acceptance or rejection of bids at least ten days prior to the award of procurement Contract.

6. Re-Bidding

6.1 If the TEC has rejected all bids under Rule 47, it may call for a re-bidding Khyber Pakhtunkhwa Public Procurement of Goods, Works & Services Rules 2014 (Rule-48).

6.2 The TEC before invitation for re-bidding shall assess the reasons of rejection and may revise specifications, evaluation criteria or any other condition for Bidders as it may deem necessary.

Award of Contract

7. Acceptance of Bid and Award Criteria

The Bidder, whose bid is found to be most closely conforming to the Evaluation Criteria and having the lowest evaluated responsive bid, if not in conflict with any other law, rule, regulation or policy of the Government of Khyber Pakhtunkhwa, shall be awarded to the Contract within the original or extended period of bid validity.

8. Competent Authority Right to vary quantities at the time of Award

The competent Authority reserves the right at the time of the award of the Contract to increase or decrease, the quantity of goods originally specified in the Schedule of Requirements without any change in unit price or other terms or conditions.

9. Notification of Award

9.1 Prior to the expiration of the period of the bid validity, the procurement cell shall notify to the successful Bidder in writing that its bid has been accepted Rule 46 in conformity with provision of Section 31 of the act in these rules.

9.2 The notification of the award shall constitute the formation of the Contract between the competent authority and the successful Bidder.

9.3 The enforcement of the Contract shall be governed by the Rule 50 of the Khyber Pakhtunkhwa Public Procurement of Goods, Works & Services Rules 2014.

10. Limitation on Negotiations

10.1 Negotiations that may be undertaken in finalization of the Contract shall not relate to the price or substance of bid specified by the Bidder but only to minor technical, contractual or logistical details.

10.2 Negotiations may relate to the following areas; (the list is being provided as guidance as only and under no circumstances be treated as exhaustive and final):

- Minor alternation to technical details, such as scope of work, the specification or drawings;
- Minor amendment to the Special Condition of Contract;
- Finalization of payment schedule and ancillary details;
- Mobilization arrangements;
- Agreement on final delivery or completion schedules to accommodate any changes required by the Procuring Agency;
- The proposed methodology or staffing;
- Inputs required from the Procuring Agency;
- Clarifying details that were not apparent or could not be finalized at the time of the bidding;
- The Bidder's tax liability in Pakistan, if a Bidder is a foreign company.

11. Negotiations shall not be used to:

- Substantially change the technical quality or details of the requirement, including the task and responsibilities of the Bidder or the performance of the goods;
- Substantially alter the terms & conditions of the Contract;
- Reduce unit rates or reimbursable costs;
- Substantially alter anything which formed a crucial or deciding factor in the evaluation of the bids or proposals;
- Alter the submitted financial bid.

12. Signing of Contract

- I. After the completion of Contract Negotiations, the Purchaser shall send the Bidder the Contract Agreement Form provided in Part-Two: Section IV of these Standard Bidding Documents, incorporating all agreements between the Parties.
- II. Within one week of the receipt of the Contract Agreement Form, the successful Bidder and the Purchaser shall sign the Contract in accordance with the legal requirements in vogue.
- III. Unless the procurement contract has already entered into force a contractor or supplier feeling aggrieved by the Order of a Purchaser accepting a bid may file an application for review.
- IV. If a successful Bidder, after completion of all codal formalities show an inability to sign the Contract then its Bid Security shall stand forfeiture and the firm may be blacklisted and de-barred from future participation, whether temporarily or permanently. In such situation the Purchaser may award the Contract to the next lowest evaluated Bidder or call for a new bid.
- V. The Contract shall become effective upon affixation of signature of the Purchaser and the selected Bidder on the contract document, shall be governed for the period of one year or till the finalization of new contract.
 - a) All Goods and related Services to be supplied under the contract that are required to be imported in Pakistan shall have their origin in eligible source countries as prescribed by the commercial polices of Federal Government Of Pakistan and all expenditures made under the contract shall be limited to such goods and services.
 - b) For purpose of this Clause "origin" means the place where the goods are produced, or the place where the related services are supplied. Goods are produced when, through manufacturing or processing.

PART – III

TECHNICAL EVALUATION PERFORMRA
FOR CCTV SURVEILLANCE

(ATTACHED) Annex

NON-MEDICAL & TECHNICAL ITEMS (CCTV SURVEILLANCE)

Mandatory	Registration Certificate for NTN, STRN.	
	Active status on ATL for NTN & STRN	
	Last 01 years Bank Statement	
	Last Year Tax Return	
	Affidavit on stamp paper duly attested mentioning following statements: (a) 2% CDR is attached with financial bid. (b) The firm is not black listed (c) Non-Shareholder Certificate (That no employee of MTI ATH Abbottabad is shareholder in the Firm's business	
	Warranty as per bidding documents	
	Certificate of 100% compliance with purchaser's specifications be provided on Firm/Company letter head	

S No	Parameters	Detail/Supporting Documents	Maximum Marks	Remarks
1	Additional Features in terms of Hardware, enhanced specifications	Additional Special Features NOT mentioned by the Purchaser (Maximum 05 marks depending upon the utility of additional feature offered)	05	
1	Physical resources	Established office within 600 Km from purchaser	01	Details with supporting documents must be attached.
		List of relevant and qualified employees	01	
		Official website of the Firm	01	
		List of spare parts available for quoted items	01	
		Availability of Technical Support (24/7)	01	
2	Past Performance of last five year	01 mark per institute. Maximum 10 marks (Only attach valid Purchase Orders reflecting financial effects of > 0.5 Mil)	10	Institutions include Govt, Semi Govt, Autonomous Bodies and renowned Private entities
3	Dealership Certification	1. Authorized Dealer: 10 2. General supplier : 02	10	

4	ISO Certification	Company ISO Certificate of Quality Management System 2 Marks per Certificate (Max 06)	06	
5	Last Year Turnover from Tax Return	Turnover 100Mil & above : 05 Turnover below 100 Mil : 02	05	
6	Warranty	01 years beyond asked warranty with parts: 03 02 years beyond asked warranty with parts: 06 03 years beyond asked warranty with parts: 09	09	
TOTAL MARKS			50	

**In Technical Evaluation 70% (35/50) marks will be passing marks
Lowest priced bid among technically qualified bids will be accepted**

PART – IV

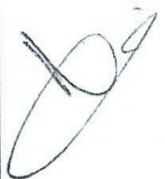
**LIST OF CCTV SURVEILLANCE WITH
SPECIFICATIONS AND REQUIRED WARRANTY**

(Attached Annex)

REVISED CCTV TENDER SPECIFICATIONS

2025-26

Sr. #	Item Name	Specifications
1.	2×4MP Full-color Duo Splicing Network Camera.	<ul style="list-style-type: none">➤ Outputs 180° wide-angle splicing image.➤ Outputs max. 8 MP (4096 × 1800)@25 fps.➤ H.265 codec, high compression rate, ultra-low bit rate.➤ Built-in warm light and the max. Illumination distance is 40 m.➤ ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.➤ WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.➤ Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card, built-in Mic and speaker, support two-way talk.➤ 12 VDC/Poe power supply, easy for installation.➤ IP67 protection.➤ EPTZ: Enlarge and track the targets of intelligent alarms.➤ SMD.➤ Intelligence➤ IVS (Perimeter Protection)➤ Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection➤ Heat Map➤ Smart Object Detection➤ Smart abandoned object; smart missing object➤ People Counting

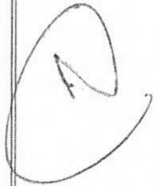


		<ul style="list-style-type: none"> ➤ Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports. ➤ Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm. ➤ Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm ➤ Certifications ➤ CE-LVD: EN62368-1 ➤ CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU ➤ FCC: 47 CFR FCC Part 15, Subpart B ➤ Two Years Warranty
2.	8 MP Full-color Active Deterrence Network Camera	<ul style="list-style-type: none"> ➤ 8 MP, CMOS image sensor, low illuminance, high image definition, Outputs max. 8MP (3840 × 2160) @25/30 fps, H.265 codec, high compression rate, low bit rate. ➤ Built-in warm illuminator, and the min. Illumination distance: 30m, ROI, SMART H.264+/H.265+, flexible coding. Applicable to various band width and storage environments, Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. ➤ Intelligent detection: Tripwire, intrusion, Abnormality detection. ➤ Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection, Supports sound and light alarm linkage. ➤ When an alarm is triggered, the camera links sound alarm and light flashing Supports one-tap disarming. ➤ You can disarm the events of alarm output, sending email, audio, and light in the configured period. ➤ Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card.

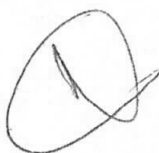


		<ul style="list-style-type: none"> ➤ Built-in Mic and speaker, 12V DC/Poe power supply, IP67 protection, SMD Plus, Colorful flashlight alarm. ➤ Two Years Warranty
3.	8MP IR Vari-focal Network Camera	<p>8MP IR Vari-focal Network Camera</p> <ul style="list-style-type: none"> ➤ 8-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. ➤ Outputs max. 8 MP (3840 × 2160) @20 fps, and supports 2688 × 1520 (2688 × 1520) @25/30 fps. ➤ H.265 codec, high compression rate, ultra-low bit rate. ➤ Built-in IR LED, and the max. illumination distance is 60 m. ➤ ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. ➤ Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. ➤ Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). ➤ Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. ➤ Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. ➤ 12 VDC/PoE power supply, easy for installation. ➤ IP67, IK10 protection. ➤ SMD Plus ➤ Two Years Warranty
4.	5 MP IR Fixed-Focal Network Camera	<ul style="list-style-type: none"> ➤ 5MP CMOS image sensor ensures high-definition images with low luminance. ➤ Outputs max. 5MP (2960×1668) @25/30fps for clear and detailed footage. ➤ Built-in IR LED provides illumination up to 50m for enhanced night vision.

		<ul style="list-style-type: none"> ➤ Flexible encoding options: ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, optimizing bandwidth and storage. ➤ Features rotation mode, WDR, 3D NR, HLC, BLC, and digital watermarking for versatile monitoring. ➤ Deep learning algorithm enables advanced features like video metadata, smart sound detection, IVS, face detection, object detection, and people counting. ➤ Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512GB Micro SD card, built-in MIC. ➤ Power supply options: 12 VDC/PoE, with ePoE compatibility. ➤ IP67 protection ensures durability in challenging environments. ➤ Enhanced motion detection with SMD 3.0 technology. ➤ Two Years Warranty
5.	2MP Network AI IR Bullet Camera	<ul style="list-style-type: none"> ➤ Max. 2MP resolution, Up to 120fps, 0.007Lux@F1.3, 1/30sec. (Color), 0Lux (B/W, IR LED on). ➤ Day & Night (ICR), WDR (120dB), H.265, H.264, MJPEG. Video Analytics based on AI. ➤ Object detection and classification (Person, Face, Vehicle, License Plate). ➤ Face mask detection. ➤ Built in Mic. ➤ Social distancing detection, Attribute, Best Shot, Compatible Insight v2.0 for Business Intelligence. ➤ Age/gender based People counting, Heat map, Queue management, TPM with FIPS 140-2 level2, Secure boot, Verify firmware forgery, System requirements, IP66, IP67, IK10, NEMA4X. ➤ Two Years Warranty
6.	4MP IR Fixed-focal Bullet Network Camera	<ul style="list-style-type: none"> ➤ 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image. ➤ Outputs max. 4 MP (2688 × 1520)@20 fps and supports 2560 × 1440 (2560 × 1440)@25/30 fps.

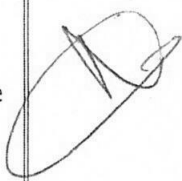


		<ul style="list-style-type: none"> ➤ H.265 codec, high compression rate, ultra-low bit rate. ➤ Built-in IR LED, and the max. Illumination distance is 80 m. ➤ ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. ➤ Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. ➤ Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). ➤ Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. ➤ Alarm: 1 in, 1 out ; audio: 1 in, 1 out ; supports max. 256 G Micro SD card; built in MIC. ➤ 12 VDC/PoE power supply, easy for installation. ➤ IP67, IK10 (optional) protection. ➤ SMD Plus ➤ Two Years Warranty
7.	Outdoor/ Indoor AI Intelligent Cameras,	<ul style="list-style-type: none"> ➤ 4Megapixel progressive scan CMOS H.265 & H.264 triple-stream encoding. ➤ 25/30 fps@2688 × 1520, 50/60 fps@1080P(1920 × 1080) WDR (140 dB), RAM 1 GB. . AI and Intelligent Smart Features, Support face image capture. ➤ Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard, Tripwire. Intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering. ➤ Support People Counting, Perimeter Protection, Support Line crossing/Region/Queuing people counting. ➤ Support 4 accesses independent detection, 4 areas independent detection, Object Abandoned/Missing.

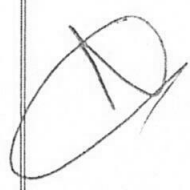


		<ul style="list-style-type: none"> ➤ Heat Map, 2.7 mm–12.0 mm motorized lens. 2/1 Alarm in/out, 1/1 audio in/out Max. IR LEDs Length 50 m, Micro SD memory, IP67, IK10. ➤ Two Years Warranty.
8.	Artificial Intelligence base Facial Reorganization Camera.	<ul style="list-style-type: none"> ➤ 4MP, CMOS image sensor, low luminance, high image definition, 4MP (2688×1520) @50 fps/60 fps, ROM , 16 GB RAM 2 GB, H.264&H. ➤ 265 coding, high compression ratio, Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485; BNC; supports max. 256 GB SD card. ➤ Five streams for three-channel HD video, IP67, IK10 protection grade, 5 streams. ➤ Face Recognition, with deep learning algorithm support People Counting. ➤ Face Capture, Perimeter Protection and Video Structuration, Professional, intelligent, Face recognition, track, priority, snapshot. ➤ Face enhancement, face exposure, face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, sadness, disgust, fear, surprise, calm, happiness and confusion), mask, beard. ➤ Max supports face contrast in face library with 200,000 faces, People Counting, People counting (count the entry number, exit number and pass number), display and output daily/monthly/annual statistics, No. in area, 2.7 to 12mm Motorized Lens, 12V DC/24V AC/. ➤ IR Distance Minimum 50m , IP67, IK10 protection grade. ➤ Two Years Warranty
9.	Artifice Intelligence License Plate 4 MP Speed Detection Cameras with installation Accessories.	<ul style="list-style-type: none"> ➤ 4 MP Artificial Intelligence ANPR Camera, white light, Embedded with Deep learning LPR Engine. ➤ Supports vehicle video detection with high detection rate; supports vehicle direction detection, License plate recognition, vehicle size, vehicle color detection and etc. ➤ Supports 11 vehicle sizes detection: large bus, heavy truck, medium truck, sedan, minivan, light truck, SUV, MPV, medium bus, pick-up and minicar.

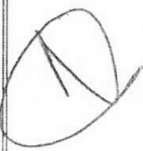
		<ul style="list-style-type: none"> ➤ Supports 11 colors detection (daytime): white, black, blue, red, yellow, green, pinkish purple, gray, brown, orange and silver. ➤ White List (10000 records database inside the camera), H.265& H.264 dual-stream encoding. ➤ Micro SD memory, Powerful motorized lens and white light, ideal for monitor ANPR distance, IP67, and superior performance for outdoor applications. ➤ Embedded with LPR algorithm inside the camera, Vehicle data structuring. ➤ License plate recognition, vehicle size, vehicle color detection and etc. <p>Illumination Distance 30 m (98.43 ft), Capture Distance, 8 m–30 m, Min. Illumination, 0.002 lx (built-in illuminator on).</p> <ul style="list-style-type: none"> ➤ Min. Detection Speed 60 km/h, Alarm Event, Vehicle Detection, Vehicle capture rate ≥ 99%, Vehicle Recognition. ➤ Two Years Warranty.
10	Mini PTZ Speed Dome Cameras for Outdoor Surveillance.	<ul style="list-style-type: none"> ➤ 2MP, 25/30fps@2M, Deep-learning. ➤ Pro AI performance: Perimeter protection. ➤ Video Structurization. ➤ 25x optical zoom, SMD, Starlight. ➤ H.265, PFA Technology. ➤ IR Distance up to 100m, -40°C~70°C wide temperature range, IP66, POE+, -15°~90° tilt range. ➤ Two Years Warranty.
11	PTZ Speed Dome Cameras for Outdoor Surveillance.	<ul style="list-style-type: none"> ➤ 4Megapixel 45x optical zoom, Max. 25/30fps@4MP. ➤ Deep-learning-based auto tracking and perimeter protection. ➤ IR distance up to 250m, IP67, IK10, Operating Temperature: -40°C~+70°C, Smart detection / Video Analytics. ➤ Support human, motor vehicle and non-motor vehicle image capture. ➤ Support alarm triggering by target types (human And vehicle).



		<ul style="list-style-type: none"> ➤ Filtering out false alarms caused by animals, rustling leaves, bright lights, etc. ➤ Support Auto Tracking, Tripwire, Intrusion, Object missing, Object Abandoned, Face Detection etc. ➤ Two Years Warranty.
12	<p>4MP 32X Smart Dual Light Network Panoramic PTZ Camera.</p>	<ul style="list-style-type: none"> ➤ 1/2.8" 4Megapixel STARVIS™ CMOS ➤ 32x optical zoom. ➤ Starlight technology. ➤ Max. 25/30 fps@2560 × 1440. ➤ IR distance up to 200 m ➤ Auto tracking. ➤ Perimeter protection. ➤ Face detection. ➤ IP66. ➤ Sound and light alarm. ➤ 180° Panoramic Splicing. ➤ Image Sensor ➤ Panorama: 1/2.8" CMOS ➤ Detail: 1/2.8" CMOS ➤ Pixel ➤ Panorama: 4 MP ➤ Detail: 4 MP ➤ Max. Resolution ➤ Panorama: 3840 (H) × 1080 (V) ➤ Detail: 2560 (H) × 1440 (V) ➤ ROM ➤ Panorama: 4 GB ➤ Detail: 4 GB ➤ RAM ➤ Panorama: 1 GB ➤ Detail: 1 GB ➤ Electronic Shutter Speed ➤ Panorama: 1/1 s-1/10,000s ➤ Detail: 1/1s-1/30,000s ➤ Scanning System ➤ Progressive ➤ Min. Illumination



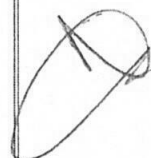
		<ul style="list-style-type: none"> ➤ Panorama: ➤ Color: 0.001 lux@F1.0 ➤ B/W: 0.0001 lux@F1.0 ➤ Detail: ➤ Color: 0.005 lux@F1.6 (1/25 s, 30 IRE, gain 100) ➤ B/W: 0.0005 lux@F1.6 (1/25 s, 30 IRE, gain 100) ➤ 0 Lux (IR on) ➤ Illumination Distance ➤ Panorama: 30 m (98.43 ft) (White light) ➤ Detail: 200 m (656.17 ft) (IR) ➤ Illuminator On/Off Control ➤ Zoom Prio; Manual; Smart IR; Off ➤ Illuminator Number ➤ Panorama: 4 (White light) ➤ Detail: 4 (IR), 2 (White light) ➤ IVS (Perimeter Protection) ➤ Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking ➤ Face Detection ➤ Supports face detection, optimization, tracking, capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first ➤ Auto Tracking: Yes. ➤ Two Years Warranty.
13	5MP IR AI-Fire Smoke Sensing Network Camera with Temperature and Humidity Detection	<ul style="list-style-type: none"> ➤ Remote check based on smoke sensing and video alarm linkage ➤ Intelligent monitoring: Flame detection ➤ High precision temperature and humidity sensors are used to monitor the temperature and humidity data in the equipment environment ➤ With split-spectrum smoke chamber and intelligent algorithm, eliminate the false alarm effectively.



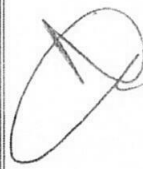
		<ul style="list-style-type: none"> ➤ Ultra-low power consumption design enables the smoke sensing module to operate for 3 years with only battery. ➤ Built-in high decibel buzzer, smoke alarm is over 85 dB at 3 meters. ➤ Self-test and low battery warning ➤ Intelligent compensation algorithm relieves the impact of dust accumulation and environment changing on smoke sensing module ➤ Insect-proof and dust-proof design for smoke sensing module ➤ Built-in alarm voice, and user can import custom voice. ➤ 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image. ➤ H.265 codec, high compression rate, ultra-low bit rate. ➤ Flip mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. ➤ 2/2 Alarm in/out, 1/1 audio in/out; supports max. 256 GB Micro SD card; built-in Mic and speaker. ➤ 12V DC/PoE power supply ➤ Built-in IR light; the max. IR LEDs Length is 20 m (65.62 ft). ➤ Two Years Warranty.
14	Hi-fidelity Pickup	<ul style="list-style-type: none"> ➤ Use metal shell, surface is through plating processing; ➤ Use high sensitivity waterproof and dustproof microphone head, pickup clear sound; ➤ Ambient noise cancellation(ANC) technology; ➤ Waterproof and dustproof level are IP66. ➤ Scope: 5~100 m2 ➤ Sensitivity:-24±3dB ➤ Frequency response: 20Hz~20kHz ➤ Directional characteristic: Omni-directional ➤ SNR(re 94dBSPL=1Pa@1KHz): 68dB ➤ Dynamic range: 84dB ➤ Max. sustainable sound pressure: 110dBSPL (1KHz, THD 1%) ➤ Output impedance: 100Ω(non-equilibrium)



		<ul style="list-style-type: none"> ➤ Output signal amplitude: 2.5Vpp/90dB SPL ➤ Microphone: High-fidelity waterproof microphone ➤ Working voltage: DC 12V ➤ Working current: 60mA ➤ Working temperature: -30°C~+70°C(-22°F~+158°F) ➤ Material: Metal ➤ Protection: IP66, IK10 ➤ Color: Silver ➤ Dimension: Φ80mm×23.5mm (Φ3.15"×0.93") ➤ Weight: 185g(0.41lb) ➤ Certification: CE/FCC
15	New-products IP In-Ceiling speaker	<ul style="list-style-type: none"> ➤ With its cylindrical structure, it supports in-ceiling mount installation. The thickness of the mounting plate can also be adjusted when installing it in the ceiling. ➤ Built of aviation aluminum, it has anti-corrosion protection. ➤ With its integrated design, it has a built-in network audio decoding chip, high fidelity digital operational amplifier and horn speaker. ➤ Supports PoE, which is convenient for on-site installation. ➤ Supports device registration and broadcast based on the ONVIF protocol. ➤ Supports the standard SIP protocol, connecting to SIP platforms, and SIP-based broadcasting. ➤ It has a 512 MB storage capacity, and supports uploading custom audios and using TF cards for expansion. ➤ Supports remote management over the network, facilitating operation and maintenance. ➤ Features one-click reset. ➤ Speaker <ul style="list-style-type: none"> Max Sound Pressure Level: 80 dB ➤ SNR: 75 dB ➤ Frequency Response: 100 Hz-18 kHz ➤ Coverage Pattern: 70°; V: 100° ➤ Speaker Output: 20 W.



		<ul style="list-style-type: none"> ➤ Network Protocol: TCP, UDP, ARP, ICMP, IGMP, DHCP, IGMP, HTTP, SIP, ONVIF ➤ General ➤ Audio Protocol: MP3, G.711a/u ➤ Storage: 512 MB and TF card ➤ Power Input: PoE+ (IEEE 802.3at), 24 VDC, 1 A (Standby) ➤ Power Consumption: 20 W ➤ Operating Temperature: -40 °C to +60 °C (-40 °F to +140°F) ➤ Operating Humidity: 60%–95% (RH), non-condensing ➤ Protection Level: IP6X ➤ Certifications: CE EMC, CE LVD ➤ Product Dimensions: 203 mm × 203 mm × 132 mm (7.99" × 7.99" × 5.20") (L× W × H) ➤ Packaging Dimensions: 235 mm × 235 mm × 170 mm (9.25" × 9.25" × 6.69") (L× W × H) ➤ Net Weight: 1.4 kg (3.09 lb) ➤ Gross Weight: 1.9 kg (4.19 lb).
16	32 Channels 2U 8HDDs Network Video Recorder.	<ul style="list-style-type: none"> ➤ Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats. ➤ Max. decoding capability: 32 × 1080p@30 fps. ➤ Max. 1280/1280/1024 Mbps incoming/recording/outgoing bandwidth. ➤ Supports AcuPick with up to 32 channels. ➤ AI by Recorder supports 8-channel face detection and recognition, up to 40 face databases and 300,000 face images; 8-channel metadata; 32-channel perimeter protection; 32-channel SMD Plus. ➤ AI by Camera supports face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, stereo analysis, heat map, and people counting. ➤ Supports redundant power, N+M cluster, Raid 0/1/5/6/10, ISCSI, Drawer-like chassis design allows for HDD hot swapping. ➤ Supports EPTZ, One-click Arming & Disarming. Security baseline 2.3.



		<p>Operating Interface: Web, Local GUI</p> <p>AI by Recorder: Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus.</p> <ul style="list-style-type: none"> ➤ AI by Camera: Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; object monitoring AcuPick. ➤ AI by Camera + Recorder: Max. 32-channel, 1 combined event per channel. <p>Perimeter Performance AI by Recorder (Number of Channels): Simultaneous mode: 32 channels, 10 IVS rules for each channel</p> <ul style="list-style-type: none"> ➤ Heterogeneous mode: 24 channels, 10 IVS rules for each channel ➤ Refer to the information on video output for details on the mode ➤ Face Detection Performance of AI by Recorder (Number of Channels): Simultaneous mode: 8 channels (up to 12 face images/s each channel) ➤ Heterogeneous mode: 5 channels (up to 12 face images/s each channel) ➤ Refer to the information on video output for details on the mode. <p>Network Bandwidth: AI disabled: 1280 Mbps incoming, 1280 Mbps recording and 1024 Mbps outgoing</p> <ul style="list-style-type: none"> ➤ Resolution: 32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF. <p>Decoding Capability: AI disabled: 2-channel 32 MP@30 fps; 2-channel 24 MP@30 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps; 8-channel 8 MP@30 fps; 11-channel 6 MP@30 fps; 12-channel 5 MP@30 fps; 16-channel 4 MP@30 fps; 32-channel 1080p@30 fps; 128-channel D1@30 fps.</p>
--	--	--

		<ul style="list-style-type: none"> ➤ Video Output: Max. resolution of VGA1 and VGA2 is 1080p; max. resolution of HDMI1 and HDMI2 is 4K; max. resolution of HDMI3 is 8K; max. resolution of HDMI4 is 1080p. ➤ Video Compression: Smart H.265+; H.265; Smart H.264+; H.264; MPEG4; MJPEG. ➤ Audio Compression: G.711a; G.711u; PCM; G726. ➤ Network Protocol: HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration; iSCSI. ➤ Mobile Phone Access: iOS; Android. ➤ Network Mode: Multi-address mode, load balance, fault tolerance and other network port binding modes. ➤ Multi-channel Playback: Up to 16 channels. ➤ Backup Method: Portable hard drive, eSATA disk, burner, USB device and network. ➤ Playback Mode: 1. Play, pause, stop, fast forward, fast backward, rewind, play by frame, Full screen, backup (cut/file), partially enlarge, audio on/off. ➤ RAID: RAID 0/1/5/6/10. ➤ Hot Swapping: YES. ➤ General Alarm: Motion detection; video tampering; video loss; scene changing, PIR alarm, IPC external alarm. ➤ Anomaly Alarm: Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behaviour of fan. ➤ Intelligent Alarm: Face detection; face recognition; perimeter protection (intrusion and tripwire); SMD Plus alarms; ANPR; people counting; stereo analysis; crowd distribution; heat map. ➤ Alarm Linkage: Record; snapshot; IPC external alarm output; buzzer; log, preset; email.
--	--	--

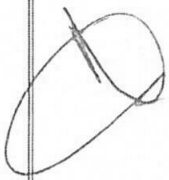


		<ul style="list-style-type: none"> ➤ Disk Interface: 8 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature. ➤ USB: 4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports). ➤ HDMI: 2. ➤ VGA: 2. ➤ Network Port: 2 (10/100/1000/2500 Mbps Ethernet port, RJ-45). ➤ License Plate Database Capacity: Blacklist and allow list: 20,000. ➤ Two Years Warranty.
17	64 Channels 2U 8HDDs Network Video Recorder.	<ul style="list-style-type: none"> ➤ 64-channel 1080p self-adaptive decoding capability. Max.1024/1024/800Mbps incoming/recording/outgoing bandwidth. ➤ Supports N+M cluster. ➤ Support Raid0/1/5/6/10. ➤ Drawer-like chassis design allows for HDD hot swapping. ➤ AI by recorder: 4-channel face detection and recognition; 8-channel metadata; 24-channel perimeter protection; 32-channel SMD Plus. ➤ AI by camera: Face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, and people counting. ➤ AI by Recorder ➤ Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus ➤ AI by Camera ➤ Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; object monitoring ➤ Perimeter Protection ➤ Perimeter Performance AI by Recorder (Number of Channels) ➤ 24 channels, 10 IVS rules for each channel



		<ul style="list-style-type: none"> ➤ Perimeter Performance of AI by Camera (Number of Channels) ➤ 64 channels ➤ Face Detection ➤ Face Attributes ➤ Gender; age group; glasses; expressions; face mask; beard ➤ Face Detection Performance of AI by Recorder (Number of Channels) ➤ 4 channels (up to 12 face images/s each channel) ➤ Face Detection Performance of AI by Camera (Number of Channels) ➤ 64 channels ➤ Face Recognition ➤ Face Database Capacity ➤ Up to 40 face databases with 300,000 images, with a total capacity of 48 G. Name, gender, birthday, address, credential type, Credential No., countries & regions and state can be added to each face image. ➤ Face Recognition Performance of AI by Recorder (Number of Channels) ➤ 20 channels FD (by camera) + FR (by recorder), image stream: 20 face images/s ➤ 4 channels FD (by recorder) + FR (by recorder), video stream: 12 face images/s ➤ Face Recognition Performance of AI by Camera (Number of Channels) 64 channels ➤ SMD Plus by Recorder, 32-channel: Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change ➤ SMD Plus by Camera, 64 channels ➤ Video Metadata, Metadata Performance of AI by Recorder (Number of Channels) ➤ 8 channels, Metadata Performance of AI by Camera (Number of Channels) ➤ 32 channels, Human Attributes ➤ Top color, top type, hat, bag, age, gender and umbrella
--	--	--

		<ul style="list-style-type: none"> ➤ Motor Vehicle Attributes ➤ License plate, plate color, vehicle model, vehicle logo, plate color, ornament, calling, ➤ Non-motor Vehicle Attributes ➤ Vehicle model, vehicle color, number of persons, helmet. ➤ Vehicle License Plate Comparison ➤ ANPR by Camera (Number of Channels) ➤ 32 channels ➤ License Plate Database Capacity: Blacklist and allow list: 20,000. ➤ Two Years Warranty.
18	128 Channels 2U 8HDDs Intelligent Video Surveillance Server.	<ul style="list-style-type: none"> ➤ Industry embedded micro-controller. ➤ Max 512Mbps incoming bandwidth. ➤ 128-channel IP video access. ➤ Supports RAID 0/1/5/6/10 ➤ 3 HDMI/2 VGA video output ➤ Main Processor Industry embedded micro-controller. ➤ AI by Camera Face detection, face recognition, video metadata, IVS (tripwire, intrusion, missing object, and more), people counting, smoking detection, call detection. ➤ Perimeter Function (AI by Camera) 64-channel. ➤ Hot Swapping: YES. ➤ Human Face Properties Supports 6 properties: Gender, age range (6-level), glasses, expression (8 types), mouth mask, and beard. ➤ Face Detection Performance (AI by Camera) (Channel Number) 64-channel. ➤ Plate Database Capacity Max. 50 plate databases with 3 hundred thousand plate numbers in total Supports allowlist and blocklist. ➤ Human Body Properties Gender, age, sleeves length, top color, bottom type, bottom color, bag, rain coat, umbrella, hat, hairstyle, direction, hold a baby, mouth mask.



		<ul style="list-style-type: none"> ➤ Vehicle Properties Vehicle type, vehicle color, plate color, logo, calling, seatbelt, ornament, region. ➤ Remote Connection 128 ➤ Network Bandwidth Incoming bandwidth: 512Mbps Recording bandwidth: 400Mbps Outgoing bandwidth: 512Mbps. ➤ Resolution 16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF/QCIF. ➤ Video Output 2-channel VGA output, 3-channel HDMI output, VGA 1/ HDMI 1 outputs the same video source. VGA2/HDMI2 outputs the same video source. Supports 4K output. ➤ Video Compression Smart H.265+/Smart H.264+/H.265/H.264. ➤ Audio Compression G.711A/G.711U/PCM/G726. ➤ Network Protocol HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, P2P. ➤ Backup Method HDD, peripheral USB storage device. ➤ HDD Group 8 ➤ General Alarm Motion detect, tampering, local alarm ➤ Anomaly Alarm IPC offline alarm, storage error, HDD full, IP conflict, MAC conflict, login lock, fan malfunction. ➤ Internal HDD 8 slots, SATA3.0. Max.16T/HDD. ➤ Two Years Warranty.
19	Embedded Video Storage	<ul style="list-style-type: none"> ➤ 64-bit High-performance multi-core processor, Max 512-ch IP camera inputs, Max 1024 Mbps incoming/recording/forwarding bandwidth, 48 HDDs, SAS/SATA, Hot-Swap. ➤ Supports RAID 0/1/5/6/10/50/60, JBOD, Hot spare, Supports video stream/ Picture direct storage mode and IPSAN storage mode. ➤ Supports N+M cluster, Supports Automatic Network Replenishment (ANR), SAS cascade for expanded storage space, Modular and drawer-like design, 1+1 redundant 80PLUS platinum power supply.

		<ul style="list-style-type: none"> ➤ BBU battery for abnormal power failure, 10Gig Fiber Module. ➤ RAM 8 GB by default (extendable to 64 GB), Power Redundancy1+1, 4×1-GbE LAN ports; 2×10-GbE optical fiber ports, up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback, Video Direct Storage (ONVIF). ➤ Two Years Warranty.
20	8TB Recording Storage Device	Recording Storage Surveillance Grade 8 TB
21	16TB Recording Storage Device	Recording Storage Surveillance Grade 16 TB
22	Industrial Grade 4K Screen for 24/7 Monitoring.	<ul style="list-style-type: none"> ➤ 55"(16: 9) UHD LED monitor, Built-in Android system, LED backlight, 3840×2160, 350cd/m2, 1200: 1 static contrast, 178/178 view angle, 8ms response time, 1.07B/10bit display color, 2×HDMI/USB 3.0/USB 2.0/Audio inputs, headphone Jack, RJ45 output, 2×8W speakers, 1231.6×707.7×62.5mm, 13.5kg.
23	Industrial Grade 4K Screen for 24/7 Monitoring.	<ul style="list-style-type: none"> ➤ 21.45" FHD Monitor, 1920×1080 (FHD), VGA×1, HDMI×1, 3000:1 Contrast Ratio
24	Video Input Interface Cards	<ul style="list-style-type: none"> ➤ Interface card A should have 2 CH HDMI 1.4 input slot support HDCP, Both HDMI input channel should support 4K resolution, Input Access Capability: All HDMI Channel Should support following resolution ➤ 3840*2160@30fps,1920*1080@60fps/1600*1200@60fps/1400*1050@60fps/1366*768@60fps/1280*1024@60fps/1280*720@60fps/1024*768@60fps, Capable of frequent switching of channels. Cards should work with different type of video convertors and splitters
25	Video Input Interface Cards	Interface 4ch BNC, Signal Format 3G-SDI, 2.97Gbps Access Capability 4ch@1080P, downward, Compatibility.
26	Base for Screens.	Aluminum Good Quality Base, for Each Screen.
27	Bracket for Screens.	Aluminum Good Quality Back Bracket, for Each Screen.

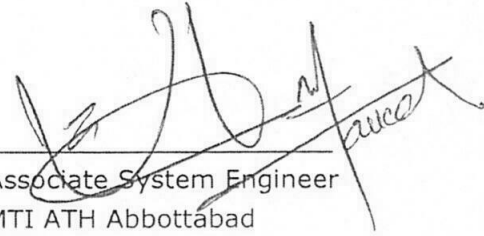
28	PC for Cameras Monitoring and Management.	<ul style="list-style-type: none"> ➤ Branded PC for Cameras Monitoring and Management. ➤ Processor: Intel Core i7 13700 ➤ CPU Cooler: Alseye S120D Black ➤ Motherboard: Gigabyte B760M Gaming X ➤ Ram: Corsair Vengeance 32GB 3600Mhz ➤ GPU: Zotac Trinity OC 4080 ➤ SSD: Samsung 980 PRO 1TB ➤ PSU: XPG Core reactor 850W 80+ GOLD ➤ Casing: Lianli lancool 216 ➤ Windows 10 Genuine ➤ 21.45" FHD Monitor, 1920×1080 (FHD), VGA×1, HDMI×1, 3000:1 Contrast Ratio
29	24 Port Gigabit High-performance Ethernet Switches Layer 3 for Main Control Room.	<ul style="list-style-type: none"> ➤ L3 + Managed Core / aggregation Switch ➤ 24 Ethernet Ports & 12 Optical Ports ➤ Switching Capacity: 598 Gbps ➤ Packet Forwarding Capacity: 168 Mbps ➤ 10 Gbps uplink and all-gigabit ports ➤ Power Consumption: 33W ➤ Dual Power Supply ➤ Various routing characteristics ➤ IRF2 intelligent resilient architecture ➤ Manage through the web client and CLI ➤ Supports functions such as port aggregation, Lay-2 VLAN, ACL, and QoS ➤ High performance and reliability; easy to manage and maintain. ➤ Two Years Warranty.
30	16 Port Gigabit POE Switch.	<ul style="list-style-type: none"> ➤ Fast/Gigabit Ethernet, 16GE Poe, Poe SFP Slots, 2GE SFP, Switching Capacity, 52Gbps. ➤ Packet Forwarding Rate, 23.81MppPacket Buffer Memory. ➤ 4Mb MAC Table Size, 8K PoE Standard, PoE (802.3af), PoE+ (802.3at). ➤ Hi-PoE, PoE Budget, 240W Long PoE Transmission. ➤ Support of VLAN, Link Aggregation, Flow Control, Spanning Tree, Management Web, Lightning Protection, Mode 2KV, Working Temperature -10°C~55°C.

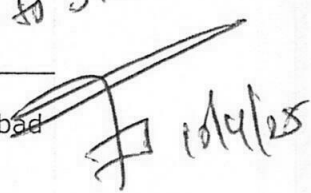


		<ul style="list-style-type: none"> ➤ Two Years Warranty.
31	08 Port Industrial Grade POE Network Managed Gigabit Switch with 2 SFP Ports including Power supply .	<ul style="list-style-type: none"> ➤ 8 Ports Industrial Full Gigabit Poe Managed Switch Provide 8* 10/100/1000Base-T Ethernet ports (Poe) + 2* 1000BASE-X SFP Ports. ➤ Support 4K high-definition video transmission; PoE Function: support IEEE802.3af/at standard, each port supports up to 60W PoE Output. ➤ Support Web-based network management, support VLAN, QoS, RSTP, SNMP, Support IGMP Snooping etc. ➤ Network function. ➤ Support 4K VLAN, Support 802.1Q Protocol-Based VLAN, Support Port-Based VLAN. ➤ Support Fast Ring as redundant link Support relay alarm for power off, network broken, PoE off, 6KV surge immunity, 8KV ESD Protection and anti-interference ability; -40°C~75°C working temperature. ➤ Support redundant Power Supply Rail/Rack kit Fitting, CE, FCC, ROHS Certified. ➤ Two Years Warranty.
32	HD Network Control Keyboard for PTZ Cameras.	<ul style="list-style-type: none"> ➤ HD Network Control Keyboard, Screen 10" TFT LCD touch screen, Keyboard to Control, 2xRJ-45 port (10/100/1000M). ➤ Four-Dimensional Joystick Control of PTZ Functions. ➤ Support 4K decoding live view, Support Video-Wall display control, support bidirectional talk, Preset Position, Auto Scan, Auto Pan, Auto Tour & Pattern Control.
33	CAT-6 Network Cable in RFT	CAT-6 Network Cable in Good Quality Duct / U-PVC, / Conduit including the RJ-45 Connectors including Civil related work if required. Support Poe long-distance transmission; Excellent OFC with 99.99% OFC (oxygen free copper) purity; Environmentally-friendly outer sheath; Top-notch quality guarantee for 10 years
34	Optical fiber cable in RFT	12 core optical fiber cable in Good Quality Duct / U-PVC, / Conduit including Splicing, Patch Cord, Pigtail and Related installation accessories.

35	FIFER PATCH CARD	FIBER PATCH CARD SC TO SC
36	FIFER PATCH CARD	FIBER PATCH CARD SC TO LC
37	PDU	PDU
38	OFDF	OFDF 24 Port with accessories of OFC related.
39	OFDF	OFDF 12 Port with accessories of OFC related.
40	SFP	Gigabit SFP Fiber Module
41	IT Rack 42U	Floor Standing, Perforated Dual Compartment Door, 2 Fixed Tray and 1 sliding tray, 4 Fans, Fan kit and PDU, Compatible to cater all accessories as per the CCTV design.
42	Weather Proof Rack	Weather Proof Rack/ Edge DB Box to inbuilt, Poe switch, UPS, Circuit Breaker, PDU, ODF etc.
43	Power Cable in RFT	2.5 mm 2 Core Power Cable in Feet including Civil work pure copper above than 99%
44	Power Backup	ONLINE Branded 10 kVA, 0.9 PF standard Backup UPS
45	Power Backup	1 kVA, 0.6 PF standard Backup
46	Breaker	10 Amp Breaker for DBs
47	Poles	Galvanized Poles for Cameras 5 Feet with, Base, Civil Work complete in all aspects.
48	Poles	Galvanized Poles for Cameras 10~15 Feet with, Base, Civil Work complete in all aspects.
49	Poles	Galvanized Poles for Cameras 15~20 Feet with, Base, Civil Work complete in all aspects.
50	Water-proof Junction Box for Camera Mount	Aesthetic design, Material: aluminum, junction box
51	HDMI Cable	HDMI Cable 15 Meter 4K Supportive.
52	Main Control Room Installation	Main Control Room with installation of LED and other related Accessories. Room Size Wood /PVC Paneling. Gypsum State of the art Ceiling 2X2. Electrification work with lighting and related work. Chairs and Counter Table

		Screen structuring
53	Digging in RFT	Digging including Lying of OFC, UTP Cable, lying of warning tape, backfilling, Installation of route indicators.
54	Installation / Commissioning	Relevant Installation / Commissioning Configuration Services for quoted equipment / store.


 Associate System Engineer
 MTI ATH Abbottabad

forwarded to SMM
 HOD(IMD)
 MTI, ATH, Abbottabad

 10/11/25