Minimum Technical Specification

Item No 1 Thermal Screening Bullet IP Camera

#	Features	Specification
1	Thermal Image sensor	Vanadium Oxide Uncooled Focal Plane Arrays
2	Temperature detection range	30°C to 45°C, or better
3	Measurement Resolution	0.1°C, or better
4	Accuracy	±0.5°C or ±0.5% whichever is greater
5	Temperature detection distance	Support 1.5 to 3 meters
6	Response time	500ms or lesser
7	MAX IR resolution	120x90 pixels or better
8	Pixel interval	17µm
10	Fever Detection	High/Low Temperature detection from People and generate alarm
11	infrared spectral band	8µm-14µm
12	Bi-spectrum Image	View of thermal and optical channel
13	Thermal sensitivity (NETD)	50mk or lesser
14	Optical Image sensor	1/2.8" Progressive Scan CMOS ~~2 MP~~ or better
16	Min. Illumination	Color :0.05 lux and B&W: 0.01 lux or better
17	S/N Ratio	>50dB
19	Lens	6 or 8 mm Fixed Lens or better
20	Video Compression	H.265, H.264 or better
21	Resolution	1080P(1920x1080), D1 (704×576/704×480), CIF (352×288/352×240)
22	Resolution and Frame Rate	Main Stream: Optical – 25 fps(2560x1440), 25/30fps (1920x1080, 1280x720) or better Thermal - 25/30fps (1280x720, 1024x768, 640x480, 256x192) or better Sub Stream: 25/30fps (704 576, 640 360, 352 288) or better ~~Third Stream: 25/30fps (1920 1080, 640 480)~~
23	Video Bit Rate	32Kbps ~ 16Mbps in all video Compression Should support CBR and VBR
24	Day/Night	Auto (ICR) / Color / B/W
25	BLC	BLC/HLC
26	White Balance	Auto/ Manual
27	Gain Control	Auto/Manual
28	WDR	Real/True WDR (120dB)
29	Audio	Should have Built-in microphone, Speaker. White light or Flash light support enabled (Optional) .
30	Ethernet	RJ-45 (10/100Base-T), POE
31	Protocol	IPv4, IPv6, HTTP, HTTPs, TCP, ARP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, QoS, UPnP, NTP, 802.1x, Unicast, Multicast, IGMP, SNMP
32	Interoperability	ONVIF, CGI(Optional), SDK or API
~~33~~	~~Edge Storage~~	~~Micro SD card support up to 128GB~~ (64GB SD card Must be loaded)
34	Operating Conditions	0° C ~ +35° C
35	Ingress Protection	IP67 Rating
36	Mounting	Should support wall/ceiling mounting, Tripod
37	General Certification	CE/ FCC, UL/BIS, ROHS (Optional)
38	Surge Protection	Should have built-in/External 2KV Surge protection

39	Alarm In/Out	Should support 1Ch alarm in /1 Ch alarm out

Item no.: 2 : 08 CH Network Video Recorder	
Sr. No.	**Item (Minimum Specification)**
2	08 Channels or better NVR with supports up to 2 SATA hard drives each support up to 4TB, should be loaded with 2 TB Capacity of HDDs.
	Support 4K streaming, Support 08 Channel up to (3840*2160) Resolution Support 72 Mbps or higher of incoming Bandwidth
	Support MJPEG, H.264 , H.265 & H.265+ or equivalent
	1# of RJ45 Ethernet port
	Support ONVIF 2.0 and above cameras, Should support Remote live view and remote playback,
	Interface: 2 USB, 1 HDMI, 1 VGA , 2 SATA, 1 CH Audio In, 1 CH Audio out, Should support Network storage and backup
	Should support 08 Channels streaming in Single screen, 04 Channels synchronous Playback
	Certification- CE/ FCC, UL/ETL/BIS certified at the time of bidding The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing
	NVR and IP CCTV camera should be same make

Item no. 3: 8 port PoE Layer-2 Network Switch	
Sr. No.	**Item (Minimum Specification)**
1	a) Switch should have minimum 8 # 10/100/1000 Base-Tx PoE ports Duplex, Full, Half. b) Min. 2 nos. of SFP ports (Unpopulated). c) Switch PoE power rating should be 120W for 8 Port
2	Should have minimum switching capacity as per the proposed switch and solution requirement.
3	Should be IPv4 and IPv6 ready from day one
4	Should have IGMP snooping v1 &2 supporting min 100 multicast groups
5	Should support protocols like MSTP, STP, RSTP, dot1q VLAN-tagging, IEEE 802.3ad, NTP
6	Switch should support Port-based and 802.1Q tag-based VLANs, MAC-based VLAN, Guest VLAN, Private VLAN, with multiple uplinks
7	All ports should have features of auto- negotiate, flow control (802.3x), port-based network access control (802.1x), port security, MAC filtering etc.
8	The switch should support, IPv6 DHCP-Guard/ DHCP Snooping, Source-Guard features
9	All necessary SFP's, interfaces, connectors, patch cords (if any) & licenses must be delivered along with the switch from day one.
10	Should have console port for administration & management, CLI and web-based GUI for easy Management
11	Port Security to secure the access to a port based on the MAC address of a user's device. The aging feature to remove the MAC address from the switch after a specific time to allow another device to connect to the same port.
12	Multilevel security on console access to prevent unauthorized users from altering the switch Configuration.
13	Web/SSL, Telnet server/SSH, ping, traceroute, Simple Network Time Protocol (SNTP)/NTP, Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, syslog, DNS client, protocol-based VLANs
14	~~Duplicate address detection (DAD)~~
15	Operating Temperature: 0 ° C to 50 ° C
16	10 % to 90 % RH, non-condensing
17	The Switch should be Rack mountable & the switch should be supplied with Indian standard AC power cord, suitable 8 Port Patch Panels with I/O's
18	Certification:- CE, FCC, UL/BIS certified at the time of bidding, All types of Switches and SPF modules should be form same OEM

Item no.: 4 – 18.5" or higher LED Display unit

Sr. No.	Features	Item (Minimum Specification)
4	Diagonal Screen Size	18" or higher wide screen
	Panel Type	LCD/LED/ LGD / Backlit based TFTs
	Resolution	1360 x 768 or better
	~~Brightness~~	~~300 nit or better~~
	~~Aspect Ration~~	~~16:09~~
	Contrast Ratio	1000:1 or higher
	Input & Output	HDMI-1, VGA (Optional)
		~~The quoted display should run 16 X 7 without any problem~~
	Accessories	Power cable, VGA cable
		Wall mount kit, Quick Setup Guide, Warranty Card, 5 Mtr AOC HDMI Cable , Remote Control with Batteries
		Should be BIS Certified.

Sr. No.	Features	Item (Minimum Specification)
	Diagonal Screen Size	18" or higher wide screen
	Panel Type	LCD/LED/ LGD / Backlit based TFTs
	Resolution	1360 x 768 or better